)eyevis

)eyeLCD-3150/6000-QHD-LD

EYEVIS LCD LINE

(Product version 2)

User Manual

Version 1.2 (April 2014)

Technical changes reserved.

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As at: April 2014

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) eyevis user document

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Table of Content

Safety/Sicherheit/ Sécurité 5

Safety Precaution 5
Sicherheitsvorkehrungen 11
Précautions de sécurité 17

Features 22

Ultra-High-Resolution Wide-Screen display 22
Quadrant segments 22
Input connection possibilities 22

Packaging 22

To unpack 22
Box content 22

Installation 23

Intended use 23
Operating noise 23
Operating time 24
Picture & synchronisation 24

Connectors & Control 25

Power cord connection 25
Input source connections 25
Signal-Input 25
Controlling (RS232) 25
Backside controls 26
Frontside controls 26
Assigning the ID of the device 27

Controlling the Display 28

The Remote Control 28
Opening the On-Screen-Display (OSD) 28
Navigating in the OSD-Menu 28
Special Keys and Key Sequences 28
Changing the Remote Control batteries 29

OSD Menu 30

Main Menu 30
Input Status 31
Tools 32
Fan Status 33
Temperature Status 34
Info 35
Network 36
Color Adjustment 37
Picture Settings 38
Description of selected functions of the QHD 39
Input Detect Mode 39
Genlock 39
Framelock 39
Colour Settings 39
Gamma Curve 39

“eyeDeviceSetup” Control software 40

Installation / Start / Setup 40
Use Serial Port 40
Wall Size 40
Mode of Operation 41
“User” Settings 41
“STATUS”-Settings 42

Troubleshooting Guide 43

Malfunction or trouble 43

Effects in continuous operation of LCDs 44

"Image Sticking" 44
"Mura" 44
Shade formation 44

Prevention of Image Retention 45

Evaluation of Visual Range 46

Failure of pixel 46
Pollutions 46
Overview acceptable total number of dot defects . . . 47

Warranty Terms and Conditions 48

Duration and validity of warranty 48
Proof of purchase 48
Warranty service or exchange during warranty period 48
Defective On Arrival (DOA) 48
Return-to-Base-Warranty (Bring-In Warranty) 48
Repair and return. 48
Temporary exchange equipment during repair time . . . 48
Warranty on repairs 49
Warranty exclusions 49
General exclusions. 49
"Image Sticking" (memory) effect and "Mura" 49
Failure of pixel 49
Accessories. 49
Factory-applied serial number. 49
Reaction time 49
Advised procedure for raising a claim 50
Consider the manual before raising a claim 50
Prepare necessary information 50
Approval by eyevis. 50
Service code: RMA number 50
Packing. 50
Transport 50
Costs not covered by warranty defects 50
Legal and other claims 50
Limitations of liability 51

Appendix 52

Appendix: Technical Specification EYE-LCD-3150-QHD-LD 52
Appendix: Dimensions EYE-LCD-3150-QHD-LD 53
Appendix: Technical Specification EYE-LCD-6000-QHD-LD 54
Appendix: Dimensions EYE-LCD-6000-QHD-LD 55
Appendix: RS232 Protocol 56
General description. 56
Communication and connection 56
Commands 56
Responses 58
Command examples. 58
Command list 59

Index 61

Revision History

Version	Date	Page / Section	Description
1.0	2013-12	All	Specification first issued.
1.1	2014-04	page 55	Technical Specification updated.
1.2	2014-10	page 27 page 56	Assigning ID added. RS232 Protocol added

About this Manual

Read and pay attention to this manual. It contains important information on the product. In particular, note all of the safety instructions and warnings.

Keep this manual in a safe place!

Warnings used

NOTICE

Indicates a hazard that could lead to **damage or destruction of the product**.

The general warning symbol indicates a hazard that could lead to **injuries or death**. In the text section, the general warning symbol is used in conjunction with the warning levels described below.

⚠ CAUTION

Indicates a hazard that could lead to **minor or moderate injuries**.

⚠ WARNING

Indicates a hazard that could lead to **death** or **serious injury**.

⚠ DANGER

Indicates a hazard that leads to **immediate death** or **serious injury**.

Symbols used

►	Indicates a single action or multiple actions which do not have to be performed in any specific order.
1. 2. 3.	Indicates a set of actions that have to be performed in a specific order.

Safety/Sicherheit/ Sécurité

Safety

Safety Precaution

Electricity is used to perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. However, improper use can result in electric shock and/or fire. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your LCD product, please read the following precautions carefully before using the product.

- Read instructions — All operating instructions must be read and understood before the product is operated.
- Keep this manual in a safe place — These safety and operating instructions must be kept in a safe place for future reference.
- Observe warnings — All warnings on the product and in the instructions must be observed closely.
- Follow instructions — All operating instructions must be followed.
- Cleaning — Unplug the power cord from the AC outlet before cleaning the product. Use a dry cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.
- Attachments — Do not use attachments not recommended by the manufacturer. Use of inadequate attachments can result in accidents.
- Water and moisture — Do not use the product near water. Do not install the product in a place where water may splash onto it. Be careful of equipment which drains water such as an air-conditioner.
- Ventilation — The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a sofa, rug or other similar surface, since they can block ventilation openings. Do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.
- Power cord protection — The power cords must be routed properly to prevent people from stepping on them or objects from resting on them.
- The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or applied with impact. Be careful not to be injured by broken glass pieces in case the LCD panel breaks.
- Overloading — Do not overload AC outlets or extension cords. Overloading can cause fire or electric shock.
- Entering of objects and liquids — Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
- Servicing — Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified service person to perform servicing.

) Repair — If any of the following conditions occurs, unplug the power cord from the AC outlet, and request a qualified service person to perform repairs.

- When the power cord or plug is damaged.
- When a liquid was spilled on the product or when objects have fallen into the product.
- When the product has been exposed to rain or water.
- When the product does not operate properly as described in the operating instructions.
- Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
- When the product has been dropped or damaged.
- When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.

) Replacement parts — In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorised parts can result in fire, electric shock and/or other danger.

) Safety checks — Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.

) Wall mounting — When mounting the product on a wall, be sure to install the product according to the method recommended by the manufacturer.

) Heat sources — Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).

) Batteries — Incorrect use of batteries may cause the batteries to burst or ignite. A leaky battery may corrode the equipment, dirty your hands or spoil your clothing. In order to avoid these problems, make sure to observe the precautions below:

- Use the specified batteries only.
- Install the batteries with due attention to the plus (+) and minus (-) sides of the batteries according to the instructions in the compartment.
- Do not mix old and new batteries.
- Do not mix batteries of different types. Voltage specifications of batteries of the same shape may vary.
- Replace an exhausted battery with a new one promptly.
- If you will not use the remote control for a long time, remove the batteries.
- If leaked battery fluid gets on your skin or clothing, rinse immediately and thoroughly. If it gets into your eye, bathe your eye well rather than rubbing and seek medical treatment immediately. Leaked battery fluid that gets into your eye or your clothing may cause a skin irritation or damage your eye.

) Usage of the monitor must not be accompanied by fatal risks or dangers that, could lead directly to death, personal injury, severe physical damage or other loss, including nuclear reaction control in nuclear facility, medical life support system, and missile launch control in a weapon system.

) Do not stay in contact with the parts of the product that become hot for long periods of time. Doing so may result in low-temperature burns.

Safety Intructions

- The TFT colour LCD panel used in this monitor is made with the application of high precision technology. However, there may be minute points on the screen where pixels never light or are permanently lit. Also, if the screen is viewed from an acute angle there may be uneven colours or brightness.
- Please note that these are not malfunctions but common phenomena of LCDs and will not affect the performance of the monitor.
- Do not display a still picture for a long period, as this could cause a residual image.
- Never rub or tap the monitor with hard objects.
- Please understand that eyevis bears no responsibility for errors made during use by the customer or a third party, nor for any other malfunctions or damage to this product arising during use, except where indemnity liability is recognized under law.
- This monitor and its accessories may be upgraded without advance notice.
- Do not use the monitor where there is a lot of dust, where humidity is high, or where the monitor may come into contact with oil or steam, as this could lead to fire.
- Ensure that the monitor does not come into contact with water or other liquids. Ensure that no objects such as paper clips or pins enter the monitor as this could lead to fire or electric shock.
- Do not place the monitor on top of unstable objects or in unsafe places. Do not allow the monitor to receive strong shocks or to strongly vibrate. Causing the monitor to fall or topple over may damage it.
- Do not use the monitor near heating equipment or in places where there is likelihood of high temperature, as this may lead to generation of excessive heat and outbreak of fire.
- Do not use the monitor in places where it may be exposed to direct sunlight.
- Please be sure to constantly remove dust and garbage that has attached to the ventilation opening. If dust collects in the ventilation opening, it may lead to excessive heat, outbreak of fire, or malfunction. As a standard, clean the inside of the monitor once every year. If dust collects inside the monitor, it may lead to excessive heat, outbreak of fire, or malfunction. Please request a cleaning of the inside of the monitor from an authorized Eyevis servicing dealer or service centre.
- Images cannot be rotated on this monitor.
- When using in vertical orientation, you will need to prepare appropriately orientated content in advance.
- Please make sure that the socket-outlet is installed near the System and is easily accessible. The Power supply cord serves as a disconnect device.

The Power Cord

- Do not damage the power cord nor place heavy objects on it, stretch it or over bend it.
- Do not use damaged extension cords. Damage to the cord may result in fire or electric shock.
- Use only the power cord supplied with the monitor.
- Do not use the power cord with a power tap. Adding an extension cord may lead to fire as a result of overheating.
- Do not remove or insert the power plug with wet hands. Doing so could result in electric shock.
- Unplug the power cord if it is not used for a long time.
- Do not attempt to repair the power cord if it is broken or malfunctioning. Refer the servicing to the service representative.

NOTICE

This is a class A product according EN 55022: 2010. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate counter measures.

NOTICE

To maintain compliance with EMC regulations, use shielded cables to connect to the following terminals:
PC/AV DVI-D output terminal, PC/AV DVI-D input terminal, PC/AV HDMI input terminal, PC D-SUB input terminal, PC RGB input terminals, and RS-232C input/output terminals.

⚠ WARNING

If a monitor is not positioned in a sufficiently stable location, it can be potentially hazardous due to falling. Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- Using fixing devices like wall mount brackets recommended by the manufacturer.
- Only using furniture that can safely support the monitor.
- Ensuring the monitor is not overhanging the edge of the supporting furniture.
- Not placing the monitor on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the monitor to a suitable support.
- Not standing the monitors on cloth or other materials placed between the monitor and supporting furniture.
- Educating children about the dangers of climbing on furniture to reach the monitor or its controls.

⚠ WARNING

Especially for child safety

- Don't allow children to climb on or play with the monitor.
- Don't place the monitor on furniture that can easily be used as steps, such as a chest of drawers.
- Remember that children can become excited while watching a program, especially on a "larger than life" monitor. Care should be taken to place or install the monitor where it cannot be pushed, pulled over, or knocked down.
- Care should be taken to route all cords and cables connected to the monitor so that they cannot be pulled or grabbed by curious children.

Zu diesem Handbuch

Lesen und beachten Sie dieses Handbuch. Darin stehen wichtige Informationen zum Produkt. Beachten Sie insbesondere alle Sicherheits- und Warnhinweise.

Bewahren Sie diese Anleitung sorgfältig auf!

Verwendete Warnhinweise

ACHTUNG
Kennzeichnet eine Gefahr, die zur **Beschädigung oder Zerstörung des Produkts** führen kann.

Das allgemeine Warnsymbol kennzeichnet eine Gefahr, die zu **Verletzungen oder zum Tod** führen kann. Im Textteil wird das allgemeine Warnsymbol in Verbindung mit den nachfolgend beschriebenen Warnstufen verwendet.

⚠ **VORSICHT**
Kennzeichnet eine Gefahr, die zu **leichten oder mittleren Verletzungen** führen kann.

⚠ **WARNUNG**
Kennzeichnet eine Gefahr, die zum **Tod** oder zu **schweren Verletzungen** führen **kann**.

⚠ **GEFAHR**
Kennzeichnet eine Gefahr, die **unmittelbar** zum **Tod** oder zu **schweren Verletzungen** führt.

Verwendete Symbole

►	Kennzeichnet einen einzelnen Handlungsschritt oder mehrere Handlungsschritte, jedoch ohne feste Abfolge.
1. 2. 3.	Kennzeichnet ein Folge von Handlungsschritten, deren vorgegebene Reihenfolge eingehalten werden muss.

Sicherheit

Sicherheitsvorkehrungen

Elektrizität erfüllt viele nützliche Aufgaben, kann aber auch Personen- und Sachschäden verursachen, wenn sie unsachgemäß gehandhabt wird. Dieses Produkt wurde mit Sicherheit als oberster Priorität konstruiert und hergestellt. Dennoch besteht bei unsachgemäßer Handhabung u.U. Stromschlag- und Brandgefahr. Um mögliche Gefahren zu vermeiden, befolgen Sie beim Aufstellen, Betreiben und Reinigen des Produkts bitte die nachstehenden Anleitungen. Lesen Sie im Interesse Ihrer eigenen Sicherheit sowie einer langen Lebensdauer des LCD-Gerätes zunächst die nachstehenden Hinweise durch, bevor Sie das Produkt in Verwendung nehmen.

- Bedienungsanleitungen lesen — Nehmen Sie das Produkt erst in Betrieb, nachdem Sie alle diesbezüglichen Hinweise gelesen und verstanden haben.
- Bedienungsanleitung aufbewahren — Diese Bedienungsanleitung mit den Sicherheits- und Bedienungshinweisen sollte aufbewahrt werden, damit Sie im Bedarfsfall jederzeit darauf zurückgreifen können.
- Warnungen beachten — Alle Warnungen auf dem Gerät und in den Bedienungsanleitungen sind genauestens zu beachten.
- Anleitungen befolgen — Alle Anleitungen zur Bedienung müssen befolgt werden.
- Reinigung — Ziehen Sie vor dem Reinigen des Produkts das Netzkabel. Reinigen Sie das Gerät mit einem trockenen Tuch. Verwenden Sie keine flüssigen Reiniger oder Aerosol-Sprays.
- Zusatzgeräte und Zubehör — Verwenden Sie ausschließlich vom Hersteller empfohlenes Zubehör. Bei Verwendung anderer Zusatzgeräte bzw. Zubehörteile besteht evtl. Unfallgefahr.
- Wasser und Feuchtigkeit — Benutzen Sie das Gerät nicht in der Nähe von Wasser. Montieren Sie das Gerät unter keinen Umständen an einer Stelle, an der Wasser darauf tropfen kann. Achten Sie dabei besonders auf Geräte, aus denen zuweilen Wasser tropft, wie etwa Klimaanlagen.
- Belüftung — Die Belüftungsschlitze und andere Öffnungen im Gehäuse dienen der Belüftung des Geräts.
- Halten Sie diese Öffnungen unbedingt frei, da eine unzureichende Belüftung zu einer Überhitzung bzw. Verkürzung der Lebensdauer des Produkts führen kann. Stellen Sie das Gerät nicht auf ein Sofa, einen Lappen oder ähnliche Oberflächen, da die Belüftungsschlitze dadurch blockiert werden können. Stellen Sie das Gerät auch nicht in ein umschlossenes Gehäuse, wie z.B. in ein Bücherregal oder einen Schrank, sofern dort nicht für eine ausreichende Belüftung gesorgt ist oder die Anweisungen des Herstellers befolgt werden.
- Netzkabel-Schutz — Die Netzkabel sind so zu verlegen, dass sie vor Tritten geschützt sind und keine schweren Objekte darauf abgestellt werden.
- Das LCD-Panel ist ein Glasprodukt. Es kann daher brechen, wenn es zu Boden fällt oder einen Schlag oder Stoß erhält. Achtung: bei einem Bruch des LCD-Panels besteht durch die Glasstücke Verletzungsgefahr.
- Überlastung — Vermeiden Sie eine Überlastung von Netzsteckdosen und Verlängerungskabeln. Bei Überlastung besteht Brand- und Stromschlaggefahr.
- Eindringen von Gegenständen und Flüssigkeiten — Schieben Sie niemals irgendwelche Gegenstände durch die Gehäuseöffnungen in das Innere des Geräts. Im Produkt liegen hohe Spannungen vor. Durch das Einschieben von

Gegenständen besteht Stromschlaggefahr bzw. die Gefahr von Kurzschlüssen zwischen den Bauteilen. Aus demselben Grunde dürfen auch keine Flüssigkeiten auf das Gerät verschüttet werden.

) Wartung — Versuchen Sie auf keinen Fall, selbst Wartungsarbeiten am Gerät durchzuführen. Durch das Entfernen von Abdeckungen setzen Sie sich hohen Spannungen und anderen Gefahren aus. Lassen Sie sämtliche Wartungsarbeiten ausschließlich von qualifiziertem Service-Personal ausführen.

) Reparaturen — Ziehen Sie in den folgenden Situationen sofort das Netzkabel und lassen Sie das Produkt von qualifiziertem Service-Personal reparieren:

- Wenn das Netzkabel oder der Netzstecker beschädigt ist.
- Wenn Flüssigkeit in das Gerät eingedrungen ist oder Gegenstände in das Gerät gefallen sind.
- Wenn das Gerät nass geworden ist (z.B. durch Regen).
- Wenn das Gerät nicht wie in der Bedienungsanleitung beschrieben funktioniert.
- Nehmen Sie nur die in den Bedienungsanleitungen beschriebenen Einstellungen vor. Unsachgemäße Einstellungen an anderen Reglern können zu einer Beschädigung führen und machen häufig umfangreiche Einstellarbeiten durch einen qualifizierten Service-Techniker erforderlich.
- Wenn das Produkt fallen gelassen oder beschädigt wurde.
- Wenn das Gerät einen anormalen Zustand aufweist. Jedes erkennbare anormale Verhalten zeigt an, dass der Kundendienst erforderlich ist.

) Ersatzteile — Wenn Ersatzteile benötigt werden, stellen Sie bitte sicher, dass der Service-Techniker nur die vom Hersteller bezeichneten Teile oder Teile mit gleichen Eigenschaften und gleichem Leistungsvermögen wie die Originalteile verwendet. Die Verwendung anderer Teile kann zu einem Brand, zu Stromschlag oder anderen Gefahren führen.

) Sicherheitsüberprüfungen — Lassen Sie vom Service-Techniker nach Service- oder Reparaturarbeiten eine Sicherheitsüberprüfung vornehmen, um sicherzustellen, dass das Produkt in einem einwandfreien Betriebszustand ist.

) Wandmontage — Bei der Montage des Gerätes an der Wand ist sicherzustellen, dass die Befestigung nach der vom Hersteller empfohlenen Methode erfolgt.

) Wärmequellen — Stellen Sie das Produkt nicht in der Nähe von Heizkörpern, Heizgeräten, Öfen oder anderen Geräten (wie z.B. Verstärkern) auf, die Hitze abstrahlen.

) Batterien — Durch falsche Anwendung können die Batterien explodieren oder sich entzünden. Eine undichte Batterie kann Korrosion am Gerät verursachen sowie Hände und Kleidung verschmutzen. Um diese Probleme zu vermeiden, beachten Sie bitte die folgenden Sicherheitshinweise:

- Verwenden Sie nur empfohlene Batterietypen.
- Achten Sie beim Einlegen der Batterien darauf, dass die Plus- (+) und die Minus- (-) Seite der Batterien gemäß den Anweisungen im Fachinneren richtig ausgerichtet sind.
- Verwenden Sie nicht alte und neue Batterien gemeinsam.
- Verwenden Sie keine Batterien unterschiedlichen Typs. Batterien derselben Form können unterschiedliche Spannungswerte besitzen.
- Ersetzen Sie eine leere Batterie sofort durch eine neue.
- Wenn Sie die Fernbedienung längere Zeit nicht verwenden, entnehmen Sie die Batterien.

- Wenn ausgetretene Batterieflüssigkeit auf Haut oder Kleidung gelangt, müssen Sie diese sofort gründlich mit Wasser spülen. Wenn Batterieflüssigkeit in die Augen gelangt, dürfen Sie die Augen auf keinen Fall reiben, sondern am besten mit viel Wasser spülen und sofort einen Arzt aufsuchen. Batterieflüssigkeit kann Hautreizungen hervorrufen oder Augenschäden verursachen

) Bei der Verwendung des Monitors ist darauf zu achten, dass Gefahren für Leib und Leben, Schäden an Gebäuden und anderen Gegenständen sowie eine Beeinflussung von wichtigen oder gefährlichen Geräten, wie z.B. der Nuklearreaktionssteuerung in Atomanlagen, lebenserhaltenden Geräten in medizinischen Einrichtungen oder Raketenabschusssteuerungen in Waffensystemen vermieden werden.

) Vermeiden Sie es, Teile des Produkts, die sich erwärmen, über längere Zeit hinweg zu berühren. Dies könnte zu leichten Verbrennungen führen.

Sicherheitshinweise

) Bei der Herstellung des TFT Farb-LCD-Panels dieses Monitors wurde Präzisionstechnologie eingesetzt. Trotzdem können einzelne Punkte am Bildschirm überhaupt nicht leuchten oder ständig leuchten. Bei Betrachtung des Bildschirms aus einem spitzen Winkel können die Farben oder die Helligkeit unregelmäßig erscheinen. Bitte beachten Sie, dass es sich dabei um keine Qualitätsmängel handelt, sondern um allgemein bei LCD-Geräten auftretende Phänomene, welche die Leistung des Monitors in keiner Weise beeinträchtigen.

) Lassen Sie niemals ein Standbild über längere Zeit hinweg anzeigen, da dies ein Nachleuchten am Bildschirm zur Folge haben könnte.

) Vermeiden Sie es, den Monitor mit harten Gegenständen abzureiben oder zu berühren.

) Wir bitten um Ihr Verständnis, dass eyevis über die gesetzlich anerkannte Leistungshaftung hinaus keine Haftung für Fehler übernimmt, die sich aus der Verwendung durch den Kunden oder einen Dritten ergeben, und auch nicht für sonstige Funktionsstörungen oder Schäden, die während der Verwendung am Gerät entstehen.

) Eine Aktualisierung dieses Monitors und seines Zubehörs ist vorbehalten.

) Verwenden Sie den Monitor nicht an Orten mit hoher Staubentwicklung, hoher Luftfeuchtigkeit oder an Orten, an denen der Monitor mit Öl oder Dampf in Kontakt kommen könnte, da dies zu einem Brand führen könnte.

) Achten Sie darauf, dass der Monitor nicht mit Wasser oder anderen Flüssigkeiten in Berührung kommt. Achten Sie auch darauf, keine Gegenstände, wie z.B. Büroklammern oder sonstige spitze Gegenstände, in den Monitor zu stecken. Die Folge könnte ein Brand oder Stromschlag sein.

) Stellen Sie den Monitor nicht auf instabile Gegenstände oder an andere unsichere Stellen. Setzen Sie den Monitor keinen starken Stößen oder Erschütterungen aus. Wenn der Monitor hinunterfällt oder umkippt, könnte er Schaden nehmen.

) Stellen Sie den Monitor nicht in der Nähe von Heizungen oder an anderen Stellen auf, an denen hohe Temperaturen auftreten, da dies zu einer übermäßig starken Erhitzung mit der Folge eines Brandes führen könnte.

) Stellen Sie den Monitor nicht an Orten auf, an denen er direktem Sonnenlicht ausgesetzt ist.

- Bitte entfernen Sie regelmäßig Staub und Schmutz von der Belüftungsöffnung. Wenn sich Staub an der Belüftungsöffnung ansammeln, kann es zu einer Überhitzung des Geräts und in der Folge zu einem Brand oder zu Fehlfunktionen kommen.
- Reinigen Sie das Innere des Monitors mindestens einmal jährlich. Wenn sich Staub im Inneren des Monitors ansammelt, kann es zu einer Überhitzung des Geräts und in der Folge zu einem Brand oder Fehlfunktionen kommen. Bitte lassen Sie das Innere des Monitors von einem autorisierten eyevis-Händler oder einem eyevis Servicecenter reinigen.
- Bilder können auf diesem Monitor nicht gedreht werden. Wenn Sie den Monitor in vertikaler Ausrichtung verwenden, müssen Sie die Bilder zuvor entsprechend drehen.
- Bitte achten Sie darauf, dass die Steckdose in der Nähe des Systems ist und leicht zugänglich ist. Das Netzkabel dient als eine Trennvorrichtung.

Das Netzkabel

- Beschädigen Sie das Netzkabel nicht, stellen Sie keine schweren Gegenstände darauf, und überdehnen oder knicken Sie es nicht.
- Verwenden Sie keine beschädigten Verlängerungskabel. Ein beschädigtes Kabel kann einen Brand oder Stromschlag verursachen.
- Verwenden Sie nur das mit dem Monitor gelieferte Netzkabel.
- Verwenden Sie das Netzkabel nicht mit einer Mehrfachsteckdose. Die Verwendung eines Verlängerungskabels kann aufgrund von Überhitzung zu einem Brand führen.
- Achten Sie darauf, dass Sie beim Einstecken oder Ausstecken des Netzsteckers keine nassen Hände haben, um einen Elektroschlag zu vermeiden.
- Ziehen Sie das Netzkabel aus der Steckdose, wenn Sie das Gerät längere Zeit über nicht verwenden.
- Führen Sie keine Reparaturversuche an einem beschädigten oder nicht funktionstüchtigen Netzkabel durch. Überlassen Sie Reparaturarbeiten ausschließlich dem Kundendienst.

ACHTUNG

Dieses Gerät ist ein Produkt der Klasse A gemäß EN 55022: 2010. In Wohnräumen kann dieses Gerät Störsignale erzeugen, die durch entsprechende Abhilfemaßnahmen durch den Benutzer beseitigt werden müssen.

ACHTUNG

Verwenden Sie EMV-gerechte, abgeschirmte Kabel, um die folgenden Anschlüsse zu verbinden:
PC/AV DVI-D-Ausgangsanschluss, PC/AV DVI-D-Eingangsanschluss, PC/AV HDMI-Eingangsanschluss, PC D-sub-Eingangsanschluss, PCRGB-Eingangsanschlüsse und RS-232C-Eingangs-/Ausgangsanschlüsse.

⚠ WARNUNG

Wenn ein Monitor nicht auf einer stabilen Unterlage aufgestellt wird, besteht die Gefahr, dass er kippt oder fällt. Zahlreiche Verletzungen, besonders bei Kindern, können durch einfache Vorsichtsmaßnahmen vermieden werden:

- Bei Verwendung der vom Hersteller empfohlenen Befestigungsvorrichtungen, wie z.B. Wandhaken.
- Stellen Sie den Monitor nur auf Möbelstücke, die ausreichend stark sind.
- Achten Sie darauf, dass der Monitor nicht über den Rand des Möbelstücks, auf dem er steht, vorsteht.
- Stellen Sie den Monitor niemals auf ein großes Möbelstück (z.B. einen Schrank oder in ein Bücherregal), ohne sowohl das
- Möbelstück als auch den Monitor an einem geeigneten Element sicher zu verankern.
- Stellen Sie den Monitor niemals auf ein Tuch oder andere Materialen, die zwischen dem Monitor und dem Möbelstück, auf dem er steht, liegen.
- Weisen Sie Kinder eindringlich darauf hin, dass es gefährlich ist, auf ein Möbelstück zu klettern, um an den Monitor oder seine Regler zu gelangen.

⚠ WARNUNG

Wichtige Hinweise für die Sicherheit von Kindern

- Lassen Sie Kinder niemals auf den Monitor klettern oder am Monitor spielen.
- Stellen Sie den Monitor nicht auf Möbelstücke, die leicht als Stufen verwendet werden könnten, wie zum Beispiel eine Truhe oder Kommode.
- Bedenken Sie, dass Kinder bei Betrachtung eines Fernsehprogramms – und ganz besonders bei einem “überlebensgroßen”
- Monitor – in starke Aufregung verfallen können. Der Monitor sollte so aufgestellt werden, dass er nicht umgestoßen oder gekippt werden kann.
- Alle am Monitor angeschlossenen Kabel und Stränge sollten so verlegt werden, dass neugierige Kinder nicht daran ziehen oder sie ergreifen können.

À propos de ce Manuel

Lisez et suivez ces instructions. Ils contient des informations importantes sur le produit. Faites particulièrement attention à toutes les consignes de sécurité et aux avertissements.

Conservez ce manuel soigneusement!

Des symboles d`avertissement utilisés

ATTENTION
Indique un danger qui peut endommager ou détruire le produit.

Le symbole d'avertissement général indique un danger qui pourrait entraîner des blessures ou la mort. Dans le texte, le symbole d'avertissement général est utilisé en conjonction avec les niveaux d´alerte décrits ci-dessous.

⚠ **PRÉCAUTION**
Indique un danger qui pourrait provoquer des blessures mineures ou modérées.

⚠ **AVERTISSEMENT**
Indique un danger qui peut provoquer des blessures graves, voire mortelles.

⚠ **DANGER**
Indique un danger qui provoquer la mort ou des blessures graves.

Symboles utilisés

►	Désigne une action unique ou plusieurs d'actions, qui peuvent être executées dans un ordre quelconque.
1. 2. 3.	Signifie une série d'actions qui doivent être exécuteés dans l'ordre chronologique.

Sécurité

Précautions de sécurité

L'électricité remplit de nombreuses fonctions utiles, mais elle peut provoquer des blessures et des dégâts matériels si elle n'est pas utilisée correctement. Cet appareil a été conçu et fabriqué en attachant la plus grande importance à la sécurité. Cependant, une utilisation inadéquate peut entraîner une décharge électrique et/ou un incendie. Afin d'éviter tout danger potentiel, veuillez respecter les consignes suivantes lors de l'installation, de l'utilisation et du nettoyage de l'appareil. Afin d'assurer votre propre sécurité et de prolonger la durée de service de votre moniteur LCD, veuillez lire attentivement les précautions ci-dessous avant d'utiliser l'appareil.

- Lisez ces explications — Vous devez lire et comprendre toutes les informations relatives au fonctionnement de l'appareil avant de l'utiliser.
- Conservez cette brochure dans un endroit sûr — Ces explications concernant la sécurité et le fonctionnement doivent être conservées dans un endroit sûr pour vous y référer en cas de besoin.
- Respectez les avertissements — Tous les avertissements figurant sur l'appareil et dans ce mode d'emploi doivent être strictement respectés.
- Suivez les instructions — Toutes les explications sur le fonctionnement doivent être respectées.
- Nettoyage — Débranchez le cordon d'alimentation au niveau de la prise du secteur avant de nettoyer l'appareil. Servez-vous d'un linge sec, et n'employez pas de détergents liquides ou en atomiseur.
- Accessoires — N'utilisez pas d'accessoires non recommandés par le fabricant, car ceci pourrait provoquer des accidents.
- Eau et humidité — N'utilisez pas cet appareil près de l'eau. N'installez pas le produit à un endroit où il pourrait recevoir de l'eau. Évitez en particulier les emplacements sous les appareils à vidange d'eau tels que les climatiseurs.
- Ventilation — Des ouïes et autres ouvertures sont prévues dans le coffret de l'appareil pour sa ventilation. Ne recouvrez pas et ne bouchez pas ces ouvertures car une ventilation insuffisante peut provoquer une surchauffe et réduire la durée de vie de l'appareil. Ne placez pas l'appareil sur un sofa, un tapis ou toute autre surface analogue car ceci pourrait obstruer les ouvertures de ventilation. Cet appareil n'est pas conçu pour une installation encastrée; ne le placez donc pas dans un endroit fermé comme une bibliothèque ou une baie à moins qu'une ventilation adéquate ne soit prévue et que les consignes du fabricant ne soient respectées.
- Protection du cordon d'alimentation — Faites passer les cordons d'alimentation à un endroit où ils ne seront pas écrasés ou coincés par d'autres objets.
- Le panneau de l'écran à cristaux liquides (LCD) de cet appareil est fabriqué en verre et, par conséquent, il peut se briser si l'appareil tombe ou s'il reçoit un fort impact. Veillez à ne pas vous blesser par les éclats de verre si le panneau LCD devait être brisé.
- Surcharge — Ne surchargez pas les prises de courant ou les rallonges car ceci peut entraîner un risque d'incendie ou d'électrocution.
- Insertion de solides ou de liquides — N'introduisez jamais des objets par les orifices de cet appareil, car ils pourraient provoquer une électrocution et/ou un court-circuit en touchant des pièces internes sous haute tension. Pour la même raison, ne renversez jamais de l'eau ou un liquide sur l'appareil.

) Entretien — N'essayez pas de réparer vous-même l'appareil. La dépose des couvercles peut vous exposer à une haute tension ou à d'autres dangers. Confiez toute réparation à un personnel qualifié.

) Réparation — Dans les cas suivants, débranchez le cordon d'alimentation au niveau de la prise secteur et demandez à un personnel qualifié d'effectuer les réparations.

- Dégât sur le cordon ou la prise de courant.
- Infiltration d'un liquide ou pénétration d'un objet à l'intérieur de l'appareil.
- Exposition de l'appareil à la pluie ou à l'eau.
- Fonctionnement anormal malgré une conformité aux explications du mode d'emploi. Ne réglez que les commandes dont il est fait mention dans le mode d'emploi. Un réglage incorrect des autres commandes peut provoquer des dégâts qui nécessiteraient des réparations complexes par un technicien spécialisé.
- Chute ou dégâts subis par l'appareil.
- Tout changement notoire ou situation anormale de l'appareil indique qu'une réparation est nécessaire.

) Pièces de rechange — Lorsque des pièces doivent être remplacées, assurez-vous que le technicien a utilisé les pièces spécifiées par le fabricant ou des pièces dont les performances et les caractéristiques sont identiques. Des changements non autorisés de pièces peuvent entraîner un incendie, une électrocution et/ou d'autres dangers.

) Contrôles de sécurité — Après une intervention d'entretien ou de réparation, demandez au technicien de procéder à un contrôle pour être sûr que l'appareil peut être utilisé en toute sécurité.

) Installation sur paroi — Si l'appareil doit être fixé sur une paroi, installez-le en respectant la méthode recommandée par le fabricant.

) Sources de chaleur — Tenez l'appareil à l'écart de sources de chaleur, telles que radiateurs, dispositifs de chauffage, poêles et autres appareils dégageant de la chaleur (y compris les amplificateurs).

) Piles — Une utilisation incorrecte des piles peut les faire éclater ou prendre feu. Une pile qui fuit peut causer des corrosions dans l'équipement, des salissures aux mains ou abîmer vos vêtements. Afin d'éviter ces problèmes, assurez-vous que les précautions suivantes sont appliquées :

- Utilisez seulement des piles prescrites.
- Installez les piles en faisant bien attention aux polarités plus (+) et moins (-) des piles selon les instructions dans le compartiment.
- Ne mélangez pas des piles usagées avec des neuves.
- Ne mélangez pas des piles de différents types. Les spécifications de voltage des piles de même forme peuvent varier.
- Remplacez rapidement une pile épuisée par une nouvelle.
- Si vous n'avez pas l'intention d'utiliser la télécommande pendant une longue période, retirez les piles.
- Si le liquide provenant d'une pile qui fuit touche votre peau ou vos habits, rincez immédiatement et complètement les parties touchées. Si un oeil est touché, faites immédiatement un bain d'oeil plutôt que de le frotter et cherchez immédiatement un traitement médical. Le liquide provenant de la fuite d'une pile qui atteint votre oeil ou vos habits peut causer une irritation de la peau ou des dommages à votre oeil.

) L'utilisation de ce moniteur ne doit pas entraîner des risques mortels ou des dangers qui pourraient provoquer directement la mort, des blessures sur le personnel, des dommages physiques sévères ou d'autres destructions, y

compris dans le contrôle des réactions nucléaires dans les installations nucléaires, dans le système médical de réanimation, et dans le contrôle de lancement des missiles dans les systèmes d'armes.

) N'entrez pas en contact direct avec les parties du produit ayant chauffé pendant de longues périodes. Il pourrait en résulter des brûlures à basse température.

Mesures de sécurité

) Le panneau couleur LCD TFT utilisé dans ce moniteur est fabriqué en application d'une technologie de grande précision. Cependant, il peut avoir sur l'écran des points minuscules où les pixels ne s'allument jamais ou restent allumés en permanence. De même, si on regarde l'écran avec un angle aigu par rapport à la surface de l'écran, les couleurs et la luminosité peuvent paraître inégales. Notez que ce n'est pas un dysfonctionnement mais un phénomène commun des écrans LCD et que cela n'affectera pas les performances du moniteur.

) N'affichez pas une image fixe pendant une longue période, car cela pourrait provoquer l'apparition d'une image rémanente.

) Ne frottez pas, ne grattez pas le moniteur avec un objet dur.

) Il faut savoir que la Eyevis décline toute responsabilité en cas d'erreurs commises durant l'utilisation par le client ou par une tierce personne, ainsi qu'en cas de dysfonctionnement ou de dommage survenu à ce produit pendant son utilisation, excepté dans le cas de responsabilité reconnue par la loi.

) Ce moniteur et ses accessoires sont susceptibles d'évoluer sans avis préalable.

) N'utilisez pas le moniteur dans un endroit où il y a beaucoup de poussières, où le degré d'humidité est élevé, ou encore là où il pourrait se trouver en contact avec de l'huile ou de la vapeur, car cela pourrait provoquer un début d'incendie.

) Assurez-vous que le moniteur ne se trouve pas en contact avec de l'eau ou d'autres fluides. Assurez-vous qu'aucun objet tel que des agrafes et des trombones ne pénètre dans le moniteur, car cela pourrait provoquer un début d'incendie ou un choc électrique.

) N'installez pas le moniteur au dessus des objets instables ou dans des endroits peu sûrs. Faites attention que le moniteur ne reçoive pas de chocs violents ni de fortes vibrations. Provoquer la chute du moniteur ou le culbuter peut l'endommager.

) N'utilisez pas le moniteur à proximité d'un appareil de chauffage ou dans des endroits où la température est élevée, car cela pourrait conduire à un dégagement excessif de chaleur et provoquer un début d'incendie.

) N'utilisez pas le moniteur dans des endroits exposés directement à la lumière du soleil.

) Veillez à nettoyer fréquemment la poussière et les débris accumulés sur les ouvertures de ventilation. L'accumulation de poussière sur les ouvertures de ventilation risque d'entraîner une surchauffe, un incendie ou un dysfonctionnement. Il est recommandé de nettoyer l'intérieur du moniteur une fois par an. L'accumulation de poussière à l'intérieur du moniteur risque d'entraîner une surchauffe, un incendie ou un dysfonctionnement. Faites nettoyer l'intérieur du moniteur par un revendeur Eyevis ou un centre de services autorisé.

) Il n'est pas possible de faire tourner les images sur ce moniteur. Quand vous travaillez suivant la direction verticale, prévoyez d'orienter au préalable le contenu.

) Veuillez vous assurer que la prise est installée près du système et est facilement accessible. Le cordon d'alimentation est un dispositif de déconnexion.

Le cordon d'alimentation

) N'endommagez pas le cordon d'alimentation, ne déposez pas d'objets lourds sur le cordon d'alimentation, ne tirez pas dessus et ne le pliez pas de manière excessive.

) Ne pas utiliser de rallonges endommagées. Tout endommagement du cordon d'alimentation peut provoquer un début d'incendie ou un choc électrique.

) Utilisez seulement le cordon d'alimentation fourni avec le moniteur.

) Ne branchez pas le cordon d'alimentation sur une prise multiple. Ajouter une rallonge peut entraîner une surchauffe et provoquer un début d'incendie.

) Ne débranchez pas ni ne branchez la prise d'alimentation avec des mains humides. En ce faisant, vous risquez un choc électrique.

) Débranchez le cordon d'alimentation si l'équipement n'est pas utilisé pendant une longue période.

) Ne tentez pas de réparer le cordon d'alimentation s'il est coupé ou s'il ne fonctionne pas correctement. Veuillez prendre contact avec le service après vente et suivre ses recommandations.

ATTENTION

Ce produit appartient à la Classe A d'après la norme EN 55022: 2010. Dans un environnement résidentiel, il peut provoquer des interférences radio et, dans ce cas, l'utilisateur peut être obligé de prendre les mesures nécessaires.

ATTENTION

Afin de satisfaire aux normes EMC, utiliser des câbles blindés pour connecter les bornes suivantes :
Borne de sortie PC/AV DVI-D, borne d'entrée PC/AV DVI-D, borne d'entrée PC/AV HDMI, borne d'entrée PC D-sub, bornes d'entrée PC RVB, et bornes d'entrée/sortie RS-232C.

⚠ AVERTISSEMENT

Un moniteur placé sur un support instable est dangereux en raison des risques de chute qu'il présente. De nombreuses blessures, touchant en particulier les enfants, peuvent être évitées en prenant quelques précautions simples :

- Utiliser les dispositifs de fixation tels que les supports muraux fournis par le fabricant.
- Utiliser uniquement des meubles capables d'accueillir le moniteur en toute sécurité.
- Vérifier que le moniteur ne dépasse pas du bord du meuble sur lequel il est posé.
- Ne pas placer le moniteur sur des meubles hauts, armoires ou étagères, par exemple, sans fixer le meuble concerné et le moniteur à un support approprié.
- Ne pas intercaler de tissu ou toute autre matière entre le moniteur et le meuble sur lequel il est posé.
- Expliquer aux enfants qu'il est dangereux de grimper sur les meubles pour atteindre le moniteur ou ses boutons de commande.

⚠ AVERTISSEMENT

En particulier pour la sécurité des enfants

- Ne laissez pas les enfants grimper sur ou jouer avec le moniteur.
- Ne placez pas le moniteur sur des meubles qui peuvent facilement se transformer en marches comme une commode avec tiroirs.
- Souvenez-vous que les enfants s'excitent souvent en visionnant un programme, surtout sur un moniteur « plus grand que la normale ». Il faut faire en sorte d'installer le moniteur là où il ne peut pas être poussé, tiré, ni basculé.
- Il faut faire en sorte de placer les fils et les câbles connectés au moniteur de façon à ce que des enfants curieux ne puissent pas les tirer ni les saisir.

Features

Ultra-High-Resolution Wide-Screen display

The EYE-LCD-3150/6000-QHD-LD is an Ultra-High-Resolution TFT Monitor. With a resolution of 3840 x 2160 pixels and 16.7 Mio colours you can display extremely fine pictures with this LCD display.

Quadrant segments

The native resolution (real existing number of Pixel) of the display needs a high-bandwidth-transmission of the video signal. Such kind of interface is not as yet standardised. Therefore the display is vested with 4 standardised DVI-Inputs (Digital Visual Interface). Each input is mapped to one-fourth of the total display area (quadrant).

Input connection possibilities

DVI 1 → DVI input for quandrant 1 (upper left)
DVI 2 → DVI input for quandrant 2 (upper right)
DVI 3 → DVI input for quandrant 3 (bottom left)
DVI 4 → DVI input for quandrant 4 (bottom right)

Packaging

The EYE-LCD display is packed in a cardboard. To provide protection during transportation, the EYE-LCD display is surrounded with foam.

To unpack

1. Release the fastening clips.
2. Remove the banding.
3. Take the EYE-LCD display out of its shipping carton.

Box content

- 1× display
- 1× power cord
- 1× user manual
- 4× DVI cords
- 1× eyevis display adjustment software on CD
- 1× IR remote control

Installation

The standard version EYE-LCD-3150/6000-QHD-LD of the displays has a robust, powder coated metal frame that enables the use of the displays in professional environments. The display frame has VESA approved holes on the backside that allow their quick and simple mounting.

Optionally eyevis provides wall-mounting kits for the displays from the EYE-LCD-3150/6000-QHD-LD. These wall-mounting kits consist of wall-mounting brackets that have to be fixed to the backside of the display and an according wall-fixture. These wall-mount structures are also available as „front access“ versions. operating the monitor

Intended use

The EYE-LCD-3150/6000-QHD-LD display can visualise extremely fine digital pictures. The displays have been especially designed for the sophisticated use in professional high-resolution applications.

The display can be used in environments with following parameters:

- Operating temperature: 0°C to 40°C (32°F to 104°F)
- Humidity: 20-90% RH (non-condensing)

Operating noise

The speed level of the integrated Fans is depending on backlight setting. The higher the brightness of backlight, the higher the warmth of the display. Automatically the fan speed will adjust and the noise level increase.

Operating time

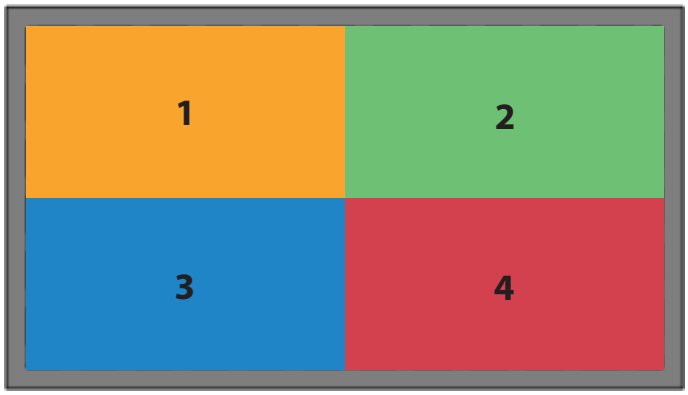
We recommend operating the EYE-LCD-3150/6000-QHD-LD display not longer than 16 hours per day. The remaining 8 hours the display should be switched off (not only black screen). That enlarges the life-time of the product decisively and reduces the risk of image retention effects.

The lifetime of the EYE-LCD-3150/6000-QHD-LD is not limited, but the components have limited values: The average life time of the backlight is 50.000 hours. Within this period the brightness will not drop under 50% of initial value. After this period the backlight can operate further with lowered brightness.

The average life time of the integrated fans is 50.000 hours. These fans must be replaced within this period to ensure a correct function and to prevent possible damages.

Picture & synchronisation

For fulfilled picture must a entire signal be received with a native (physical) resolution of the display. The input signal must be adjusted to 3840x2160 px resolution.



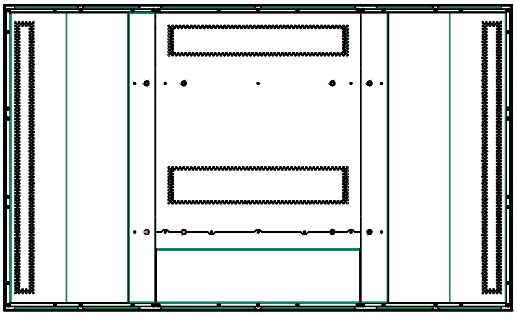
) **NOTE:**

Input signal will not be scaled!

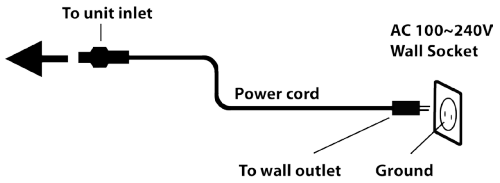
- DVI-Input < 1920x1080 → Signal will centrally arranged per quadrant
- DVI-Input > 1920x1080 → Signal may be disturbed / non-synchron / glinting or even no picture.

Connectors & Control

Power cord connection



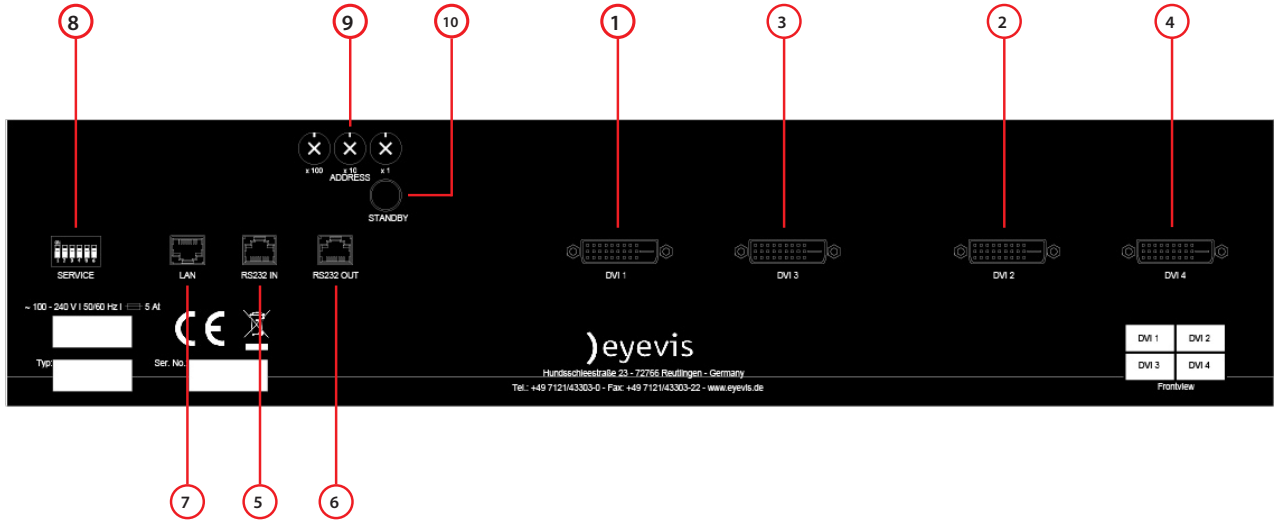
- Power cord connection
- Use the supplied power cord to connect your LCD panel to the wall outlet.
- Plug the female power connector into the male connector at the back of the LCD panel



Input source connections

Signal-Input

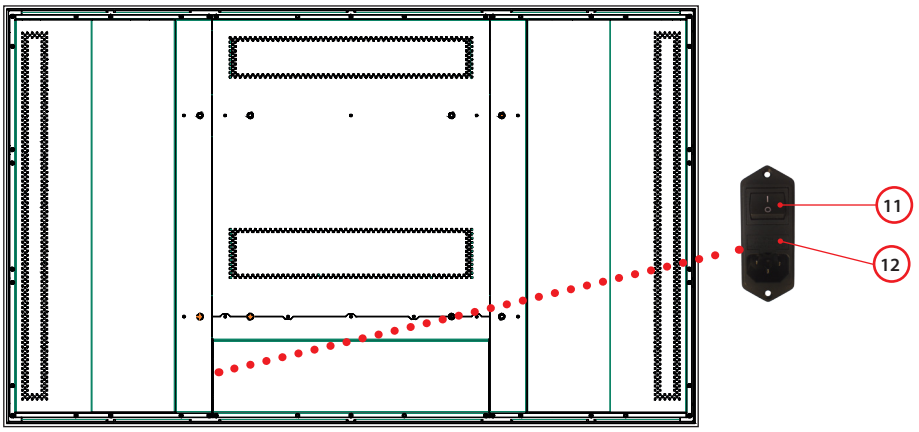
No.	Name	Remarks
1	DVI-Input quadrant 1	DVI-D input 1
2	DVI-Input quadrant 2	DVI-D input 2
3	DVI-Input quadrant 3	DVI-D input 3
4	DVI-Input quadrant 4	DVI-D input 4



Controlling (RS232)

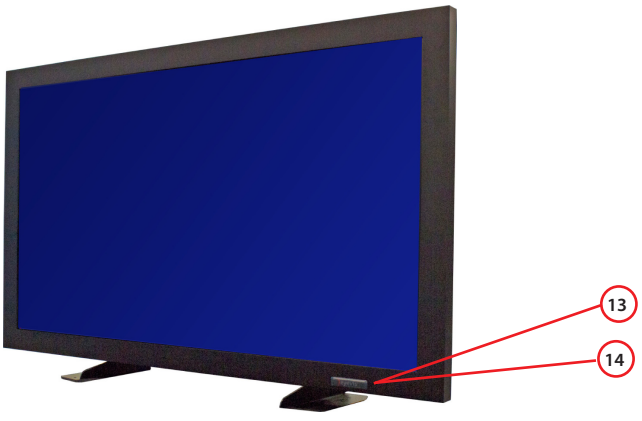
No.	Name	Remarks
5	RS232 Input	RJ45 Input
6	RS232 Output	RJ45 Output (for connection additional eyevis displays)
7	LAN Input	RJ45 Input for LAN (local area network)

Backside controls



No.	Name	Remarks
8	DIP switches	• Service mode • Reset database • Not used • Bootloader mode • Not used • Not used • Not used
9	Addressing	Rotation-switches for setting the display address *For more information see chapter „Assigning the ID of the device“ on page 27.*
10	Standby ON/OFF	Push-Button-Switch
11	All-pole mains ON/OFF switch	Switch off the mains voltage
12	Fuse	Primary 5A fuse

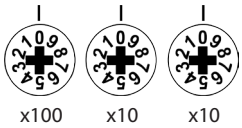
Frontside controls



No.	Name	Remarks
13	LED	Announce the current operating mode GREEN = ON RED = Standby
14	IR-Receiver	Receiver of the IR-Remote-Controler

Assigning the ID of the device

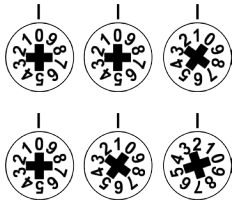
To be able to control a combination of displays with a single interface (control software or with one remote control) each display has to be assigned a unique ID. To assign the ID of a device use the rotation switches located on the backside of display.

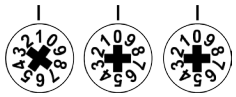


Values of rotation switch:

- Left switch value: x100
- Central switch value: x10
- Right switch value : x1

Examples of display IDs:





Address (ID)	Switch 1 (x100)	Switch 2 (x10)	Switch 3 (x1)
1	0	0	1
12	0	1	2
...			
100	1	0	0
...			

) NOTE:
To control the display via eyeDeviceSetup software, select the display with corresponding ID in the display area of and the eyeDeviceSetup software.

► Example: display ID = 1 → select the display with ID 1 in the display area of the eyeDeviceSetup software.

Controlling the Display

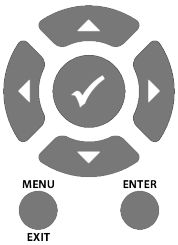
The Remote Control

The menu functions of the OSD menu can be accessed with the eyevis Remote-Control (RC).

- To use the RC aim at the display's IR-Receiver.
- To use the RC connect the IR sensor (see picture on the left) with the IR Input socket of the **first** LC display of the RS232 daisy-chain in the video wall. Only **one** IR sensor may be connected.

Opening the On-Screen-Display (OSD)

- Press the **MENU/EXIT**-Button to open the OSD Menu on the screen.



Navigating in the OSD-Menu

- Use the arrow buttons (►/▼/◄/▲) to navigate through the menu.
- Press the check mark button (✓) to select a menu item.
- Press **MENU/EXIT** to abort the current operation and return to the previous menu.
- For numerical values you can either use the up/down arrow (▼/▲) to increase or decrease values or insert the values directly on the number block. If using the arrow buttons for entering numerical values, holding the keys pressed will toggle larger steps.

Special Keys and Key Sequences

- You can use the **POWER** button to activate Standby Mode.

You can reboot the display and read back saved settings at any time:

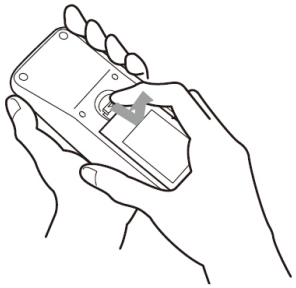
- Press the sequence **BLUE**-**RED**-**YELLOW** (■■■) to trigger a reset on the currently selected display.

) **NOTE:**

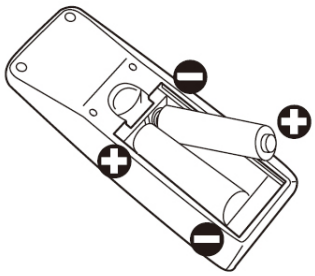
- Illustrated values may differ from your displayed OSD menu settings, depending on the firmware version and connected signal sources.
- Do not forget to select *Save* in the main menu if you want to save your changes permanently.

Changing the Remote Control batteries

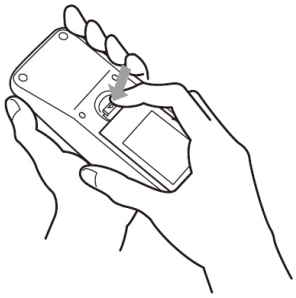
NOTE:
The pictures are for illustration purposes and may differ from the originals.



1	**Remove the battery cover** Slide back and remove the battery cover in the direction of the arrow.



2	**Insert the batteries** Align and insert two AAA batteries according to their plus and minus ports (as indicated on the button of the battery case of the remote control).



3	**Close the battery cover** Replace the battery cover in the direction of the arrow and snap it back into place.

- Used batteries needed to follow the city rule to be discarded.
- Avoid keeping used, old batteries inside the remote control, causing leakage of internal liquid resulting metal rust or fatal damage to the remote control hand unit.
- Battery to be used according to the instruction

⚠ CAUTION

About the remote control

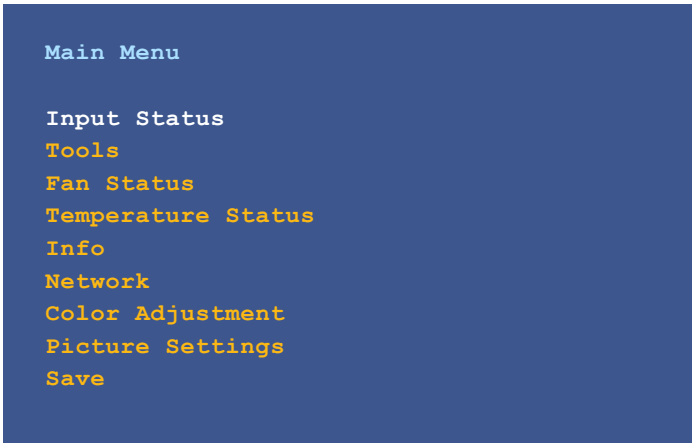
- Don't drop, shake or bump.
- Don't place on wet materials.
- Don't dismantle.
- Don't place in locations with exposure to high-temperature or high-humidity levels.

OSD Menu

) **NOTE:**
Illustrated values may differ from your displayed OSD menu settings, depending on the firmware version and connected signal sources.

Main Menu

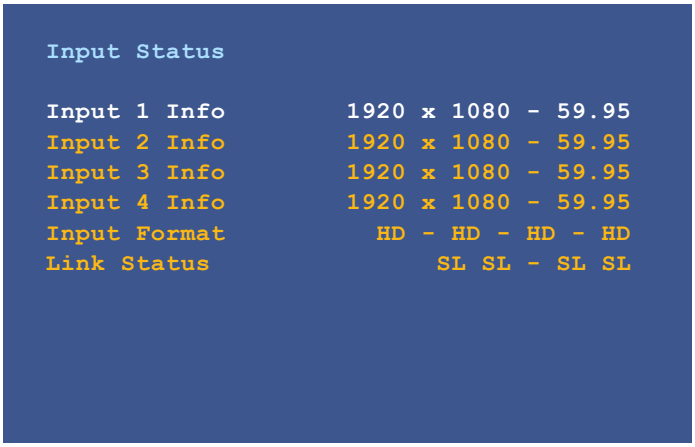
In this menu you can set common adjustments.
For more information see chapter „Navigating in the OSD-Menu“ on page 28..



Main Menu	**Input Status**	Information about input board. Press **ENTER** or ✓ to **ENTER**.
	Tools	Miscellaneous utility settings. Press **ENTER** or ✓ to **ENTER**.
	Fan Status	Information about fan values. Press **ENTER** or ✓ to **ENTER**.
	Temperature Status	Information about temperature values. Press **ENTER** or ✓ to **ENTER**.
	Info	Hard- and Software information about the display. Press **ENTER** or ✓ to **ENTER**.
	Network	Settings for network configuration. Press **ENTER** or ✓ to **ENTER**.
	Color Adjustment	Settings for colour configuration. Press **ENTER** or ✓ to **ENTER**.
	Picture Settings	Settings for picture configuration. Press **ENTER** or ✓ to **ENTER**.
	Save	Saving configuration settings permanently. Press **ENTER** or ✓ to **ENTER**.

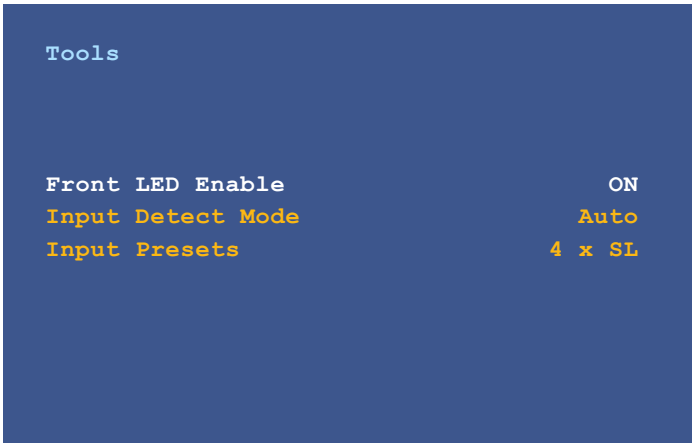
) **NOTE:**
Do not forget to select “Save” in the main menu, if you want to save your changes for future startups

Input Status


Input Status
Input 1 Info 1920 x 1080 - 59.95
Input 2 Info 1920 x 1080 - 59.95
Input 3 Info 1920 x 1080 - 59.95
Input 4 Info 1920 x 1080 - 59.95
Input Format HD - HD - HD - HD
Link Status SL SL - SL SL

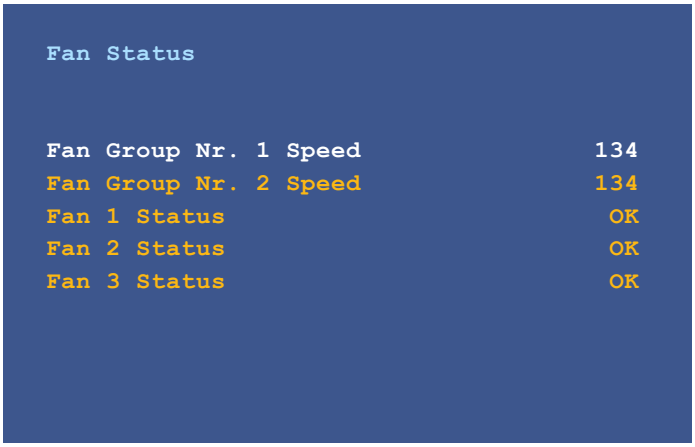
Main Menu	Input Status		
		Input 1 Info	Resolution and frequency of input signal 1 Press **MENU/ENTER** or ◄ to return to previous menu..
		Input 2 Info	Resolution and frequency of input signal 2 Press **MENU/ENTER** or ◄ to return to previous menu..
		Input 3 Info	Resolution and frequency of input signal 3 Press **MENU/ENTER** or ◄ to return to previous menu..
		Input 4 Info	Resolution and frequency of input signal 4 Press **MENU/ENTER** or ◄ to return to previous menu..
		Input Format	Information about input format of input signals. Press **MENU/ENTER** or ◄ to return to previous menu..
		Link Status	Information about link status of input signals. Press **MENU/ENTER** or ◄ to return to previous menu..

Tools



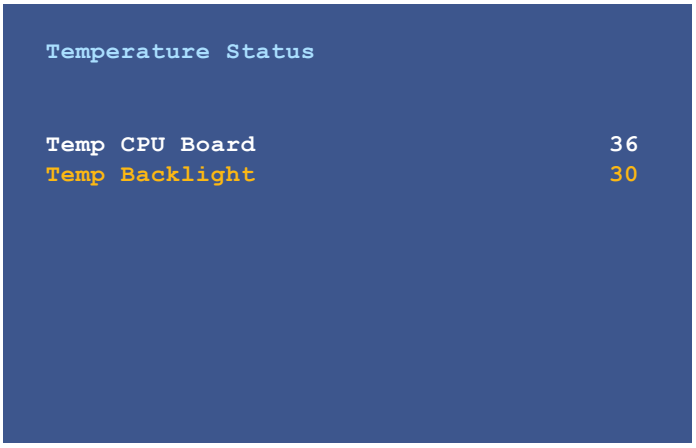
Main Menu	Tools	**Front LED Enable**	Switches the front LED ON/OFF. Press **ENTER** to **ENTER**. Press ✓ to switch ON or OFF. (Default: ON) Press **MENU/ENTER** or ◄ to return to previous menu..
		Input Detect Mode	Adjusts the input detect mode. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired setting and then press **ENTER** Option: Auto or User (Default: Auto). Press **MENU/EXIT** to return to the previous menu.
		Input Presets	Adjusts the input presets. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired setting and then press **ENTER** Press **MENU/EXIT** to return to the previous menu.

Fan Status



Main Menu	Fan Status		
		Fan Group Nr. 1 Speed	Current speed of Fan Group Nr. 1 (depends on CPU Temperature) Press **MENU/EXIT** or ◄ to return to the previous menu.
		Fan Group Nr. 2 Speed	Current speed of Fan Group Nr. 2 (depends on CPU Temperature) Press **MENU/EXIT** or ◄ to return to the previous menu.
		Fan 1 Status	Shows whether Fan 1 is detected to be running (OK indicates active / !! indicates inactive) Press **MENU/EXIT** or ◄ to return to the previous menu.
		Fan 2 Status	Shows whether Fan 2 is detected to be running (OK indicates active / !! indicates inactive) Press **MENU/EXIT** or ◄ to return to the previous menu.
		Fan 3 Status	Shows whether Fan 3 is detected to be running (OK indicates active / !! indicates inactive) Press **MENU/EXIT** or ◄ to return to the previous menu.

Temperature Status

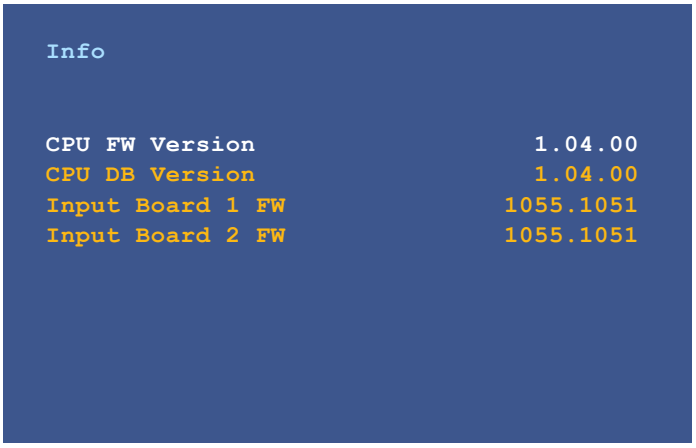


Main Menu	Temperature Status		
		Temp CPU Board	Current temperature of CPU Board Press **MENU/EXIT** or ◄ to return to the previous menu.
		Temp Backlight	Current temperature of Backlight Press **MENU/EXIT** or ◄ to return to the previous menu.

NOTICE!

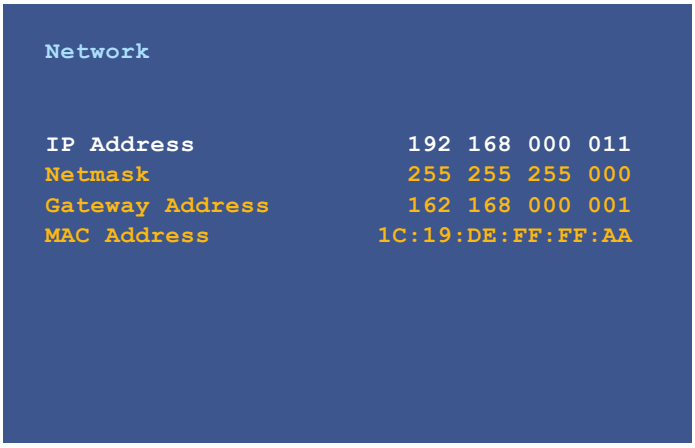
If the temperature of the display is more than 60°C (104°F), it will shut down to protected the display and the components.

Info



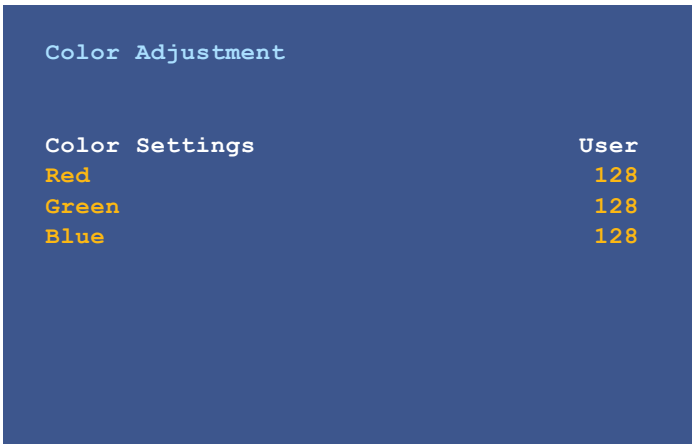
Main Menu	Info		
		CPU FW Version	Firmware version of the CPU Press **MENU/EXIT** or ◄ to return to the previous menu.
		CPU DB Version	Version of the used CPU Database Press **MENU/EXIT** or ◄ to return to the previous menu.
		Input Board 1 FW	Firmware version of the Input Board 1 Press **MENU/EXIT** or ◄ to return to the previous menu.
		Input Board 2 FW	Firmware version of the Input Board 2 Press **MENU/EXIT** or ◄ to return to the previous menu.

Network



Main Menu	Network		
		IP Address	Adjusts the IP address. display. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired value and then press **ENTER** Press **MENU/EXIT** to return to the previous menu.
		Netmask	Adjusts the netmask. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired value and then press **ENTER** Press **MENU/EXIT** to return to the previous menu.
		Gateway Address	Adjusts the gateway. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired value and then press **ENTER** Press **MENU/EXIT** to return to the previous menu
		MAC Address	Information about MAC Address. Press **MENU/EXIT** or ◄ to return to the previous menu.

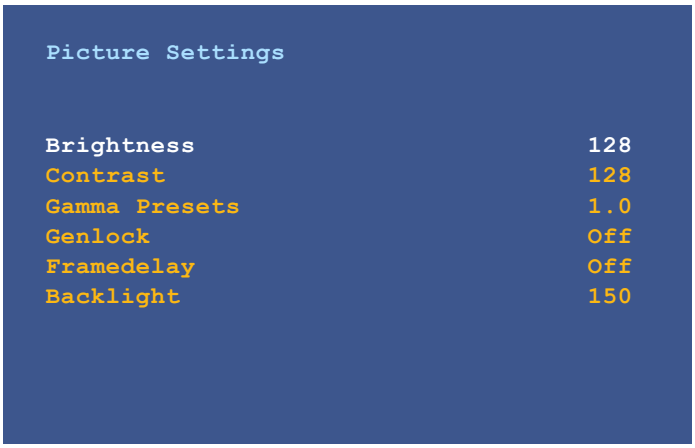
Color Adjustment



Main Menu	Color Adjustment	**Color Settings**	Adjusts the colour settings. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired setting and then press **ENTER** Option: User or Auto (Default: Auto). Press **MENU/EXIT** to return to the previous menu
		Red	Increases or decreases the red level. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired level and then press **ENTER** Range: 0~255 (Default: 128). Press **MENU/EXIT** to return to the previous menu
		Green	Increases or decreases the green level. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired level and then press **ENTER** Range: 0~255 (Default: 128). Press **MENU/EXIT** to return to the previous menu
		Blue	Increases or decreases the blue level. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired level and then press **ENTER** Range: 0~255 (Default: 128). Press **MENU/EXIT** to return to the previous menu

(rw) = Read and Write, otherwise only Read

Picture Settings



Main Menu	Picture Settings		
		Brightness	Increases or decreases the brightness. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired level and then press **ENTER** Range: 0~255 (Default: 128). Press **MENU/EXIT** to return to the previous menu
		Contrast	Increases or decreases the contrast. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired level and then press **ENTER** Range: 0~255 (Default: 128). Press **MENU/EXIT** to return to the previous menu
		Gamma Presets	Switches the gamma preset. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired preset and then press **ENTER** Option: 1.0 or 5.5 (Default: 1.0). Press **MENU/EXIT** to return to the previous menu
		Genlock	Activates or deactivates the genlock. Press **ENTER** to **ENTER**. Press ◄ or ► to switch ON or OFF and then press **ENTER** (Default: OFF) Press **MENU/EXIT** to return to the previous menu
		Framedelay	Activates or deactivates the frame delay. Press **ENTER** to **ENTER**. Press ◄ or ► to switch ON or OFF and then press **ENTER** (Default: OFF) Press **MENU/EXIT** to return to the previous menu
		Backlight	Increases or decreases the backlight. Press **ENTER** to **ENTER**. Press ◄ or ► to select the desired level and then press **ENTER** Range: 0~200 (Default: 150). Press **MENU/EXIT** to return to the previous menu

(rw) = Read and Write, otherwise only Read

Description of selected functions of the QHD

Input Detect Mode

The Display supports both Single-Link DVI (SL) and Dual-Link DVI (DL). Whereas in SL mode each source cable provides the image for one Full HD quarter of the display, in DL mode a 1920x2160 image is transferred over a single cable providing the image for one half of the display. In auto mode the display detects and displays the input mode itself. In force mode a scheme can be chosen from the Input Presets that determines where single and dual link sources are connected.

Genlock

In a non-genlock mode the input source and the output to the screen are run in so-called free-buffer mode, i.e. the clock for input and output are not forced to run synchronously. For example input frame frequency and the panel frame frequency may differ. This can lead to artefacts like frame losses. If the sources themselves share a common vertical sync (the signal used to indicate a new frame) this synchronized input can also be used to control the clock to the panel side. Thus there is always a fixed phase of one frame between input and output and thus input and output are run synchronously. The display measure whether the input signals are suitable and allows activation only in this case. An active genlock is disabled automatically if the prerequisites are no longer met (e.g. because one input source is disconnected). It will be automatically enabled if the genlock input source prerequisites are met again.

Framelock

If genlock is enabled with 4 single link DVI sources it is possible to delay the output on the lower part of the display by one frame using the framelock function. This can be used to avoid tearing effects with video sources: Since the native operation mode of the display is stripe mode (i.e. the image is displays the 2160 vertical pixels successively) for a smooth video image it must be assured the content of the upper and the lower quarters have a one frame phase shift.

Colour Settings

The display disposes of an integrated colour matrix that allows adjusting the colour weight. In user mode the base colours can be modified directly. For more advanced adjustments the external mode can be used. Please refer to the description given in the serial protocol.

Gamma Curve

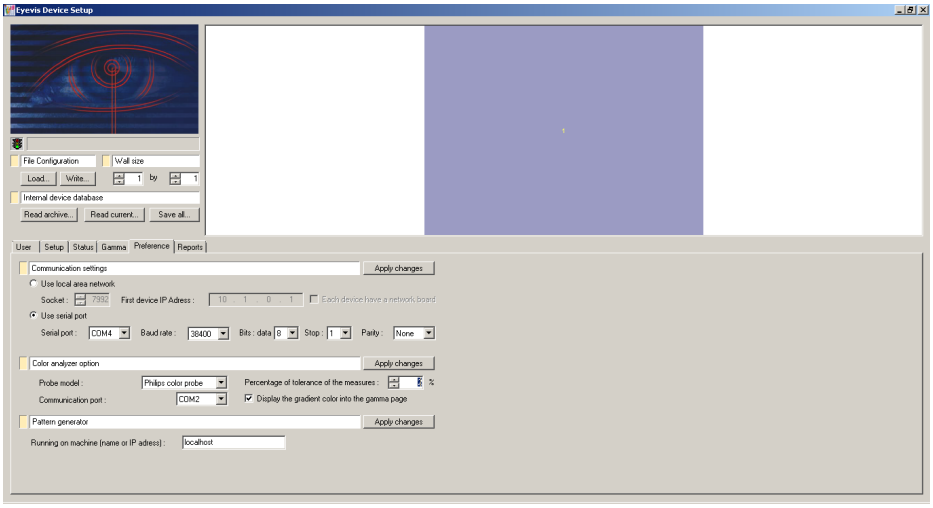
A gamma curve is used to compensate for nonlinear effects in both a display device and the human eye. It transforms the input using an exponential function to obtain a linearly perceived image. For special applications user mode can be controlled by serial commands.

“eyeDeviceSetup” Control software

The EYE-LCD-3150/6000-QHD-LD can be controlled and configured with the included “eyeDeviceSetup“ software.
To control the EYE-LCD-3150/6000-QHD-LD you need a windows compatible PC with a serial Interface (RS232). If a serial interface (RS232) do not exists, you can use the USB-RS232 adapter (not included in delivery) to connect the display.

Installation / Start / Setup

Copy the according directory of the included CD to any directory on your computer. Start the application ‚eyeDeviceSetup.exe‘. (Password is not needed for following functions). Choose the index <Preference> to adjust the communication settings in the menu „*Communication Settings“*.



Use Serial Port

- Serial Port: COM-Port of your PC which is connect with the monitor
- Baud Rate: 115200
- Bits: Data: 8
- Bits: Stop: 1
- Bits: Parity: None

► After modifying the parameter, press **APPLY CHANGES** to save the settings permanently.

Wall Size

► Choose the setting „1“ by „1“

Mode of Operation

The EYE-LCD-3150/6000-QHD-LD is equipped with a internal processing which can access to every individual quadrant of the monitor.

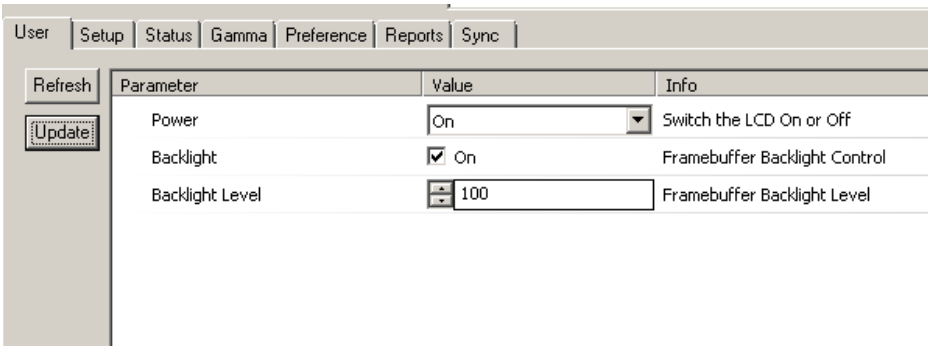
The internal database includes all needed parameters. With the this software you can read out and manipulate the parameters.

► Press the button **READ CURRENT...** to read out the actually values.

The display switches ON with the saved values every time. Should be the values adjusted such a way that exist no more satisfying function, you can switch OFF and ON and the display reset to the last saved configuration.

After successfully manipulation of the values, press **SAVE ALL** to save the values permanently and the display will start next time with the new configuration.

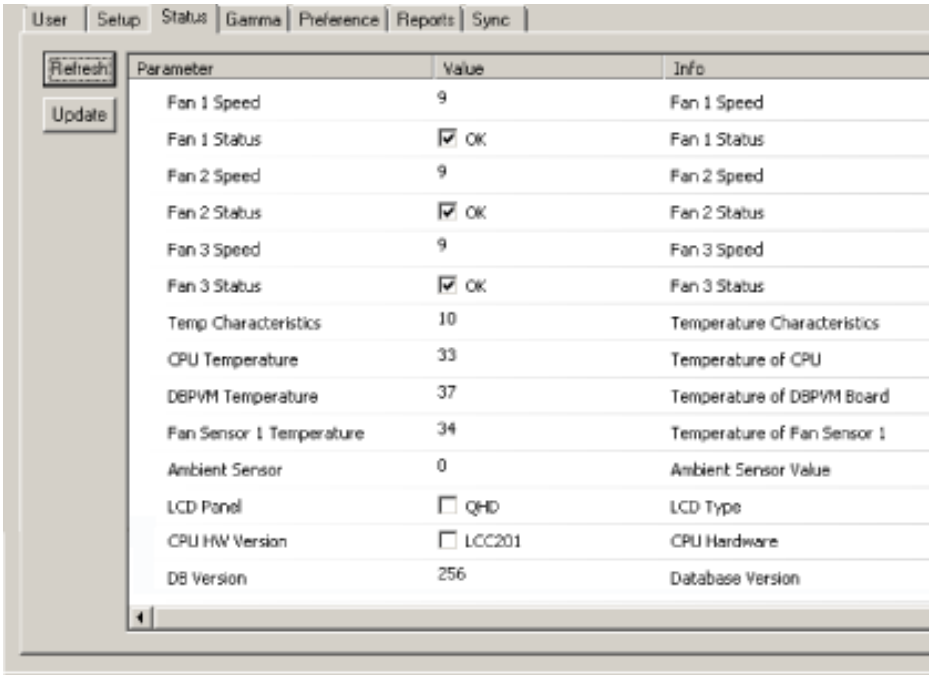
"User" Settings



Parameter	Range of Value / Default Value	Function
Power	ON, OFF	Switch the LCD ON or OFF
Backlight	ON, OFF	Switch the backlight ON/OFF
Backlight level	10-255	Setting of backlight brightness 255 = 100%

“STATUS”-Settings

The index “Status” indicated the current operating values of the monitor. To update the operating values press the button „REFRESH“ on the left side.


User
Setup
Status
Gamma
Preference
Reports
Sync
Refresh
Update
Parameter
Value
Info
Fan 1 Speed 9 Fan 1 Speed
Fan 1 Status OK Fan 1 Status
Fan 2 Speed 9 Fan 2 Speed
Fan 2 Status OK Fan 2 Status
Fan 3 Speed 9 Fan 3 Speed
Fan 3 Status OK Fan 3 Status
Temp Characteristics 10 Temperature Characteristics
CPU Temperature 33 Temperature of CPU
DBPVM Temperature 37 Temperature of DBPVM Board
Fan Sensor 1 Temperature 34 Temperature of Fan Sensor 1
Ambient Sensor 0 Ambient Sensor Value
LCD Panel QHD LCD Type
CPU HW Version LCC201 CPU Hardware
DB Version 256 Database Version

Parameter	Range of Value / Default Value	Function
Fan 1 Speed	0-255	The current speed of Fan 1
Fan 1 Status	Ok / !!	Shows whether Fan 1 is detected to be running
Fan 2 Speed	0-255	The current speed of Fan 2
Fan 2 Status	Ok / !!	Shows whether Fan 1 is detected to be running
Fan 3 Speed	0-255	The current speed of Fan 3
Fan 3 Status	Ok / !!	Shows whether Fan 1 is detected to be running
Temp Characteristics		Number of temperature characteristics
CPU Temperature		The temperature detected on CPU board in °C
DVBPM Temperature		The temperature detected on DVBPM board in °C
Fan Sensor 1 Temperature		The temperature detected near the fans in °C
Ambient Sensor	0-1864	The current ambient light detected
LCD Panel		String Description of the LCD Panel
CPU HW Version		Hardware version of the CPU
DB Version		Version of the database used

Troubleshooting Guide

Before calling service personnel, please check the following chart for a possible cause of the trouble you are experiencing.

Symptom	Check these things
No picture	• Make sure the power cord is plugged in • Maybe the power is OFF or Standby • Check whether the auxiliary equipment is connected properly • Check if the input setting is correct • Signal may not be suitable
The remote control does not operate	• Make sure the batteries are inserted matching the + and - marks of the battery compartment • The batteries may be exhausted • Use the remote control aiming at the remote control sensor
The picture colour is pale, or not clear	• Check the picture quality adjustment • Make sure cables are connected correctly

Malfunction or trouble

⚠ CAUTION

Smoke or peculiar smells

If the unit is still used in this condition, it may cause a fire or an electric shock.

- ▶ Immediately remove the power plug from the outlet.
- ▶ Make sure that the smoke or smell has stopped, then contact your dealer for inspection.

⚠ CAUTION

Liquids or objects inside the device

If you continue to use the device after water, other fluids or objects have been spilled or dropped, this may cause a fire or an electric shock.

- ▶ Immediately remove the power plug from the outlet.
- ▶ Contact your dealer for inspection.

⚠ CAUTION

Damage caused by dropping the device

If you continue to use the device after it has been dropped or the housing has been damaged, it may cause a fire or an electric shock.

- ▶ Immediately remove the power plug from the outlet.
- ▶ Contact your dealer for inspection.

⚠ CAUTION

Damaged or hot power cable

If you continue to use the device even though the power cable is damaged or becomes hot, it may cause a fire or an electric shock.

- ▶ Immediately remove the power plug from the outlet.
- ▶ Contact your dealer for inspection.

Effects in continuous operation of LCDs

False installation or use of the display during operating time may bring undesirable partly visible effects. The internal structure of LCD panel may be changed by outside influences with partly visible effects.

"Image Sticking"

This phenomenon which named alternatively "image retention", "ghost image", "memory effect" or "remanent image" appears if the fluid crystals of the panel depart from the initial position. This undesired effect may occur if same content is showed continually for long time and thereafter the content changes. Then possibly old content is still visible as "shade". These effects are wear marks, which may be intensified by unsuitable usage. It is not a defect!

Image Sticking must not mixed up with "Burn-in", which is a known fact of plasma displays and cathode ray tubes and is based on completely different physical mechanisms. Heavy "Image Sticking" may be reversed by long switch off of the LCD/TFT displays.

Image Sticking of TFT panels is excluded from the warranty.

"Mura"

Further effect is Mura (a Japanese term for unevenness), which is visible as cloud formation. These clouds are particularly visible at low brightness. The most probably for the occurrence of Mura is operating the system in wrong temperature specifications. These may be caused by to high ambient temperature as well as poor air supply caused by inconvenient installation or polluted ventilation system.

Mura of TFT panels is excluded from the warranty.

Shade formation

Dust particle may build up inside the panel caused by high ambient pollution level. These particles climb up in the panel. This effect starts mostly in corners of the rim through the different layers by convention and capillary formation. These pollutions may be reversed by resolving and cleaning of the panel components in our clean room.

Shade formation of TFT panels by pollution is excluded from the warranty.

Prevention of Image Retention

NOTICE!

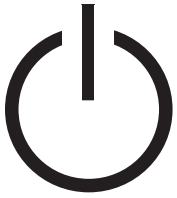
Reduce ambient temperature
The ambient temperature and therefore the temperature inside the LCD display plays a decisive role for the appearance of image retention.
The risk of image retention increases the higher the surrounding temperature is. If possible, the ambient temperature should not exceed 35 °C. It is also possible to ensure that the ventilation slots of the display are not covered or polluted by dust.

full brightness

half brightness

NOTICE!

Reduce the display brightness to 50 %
Most applications do not require the highest brightness of the displays. The displays can be used with half of the brightness in the same efficient way and do still provide perfect visibility of their content. The reduced brightness enlarges the life-time of the display and allows later readjustments of the brightness level.



NOTICE!

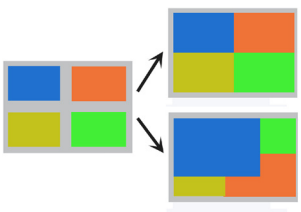
Stand-by-Mode and switching off the device
Switching off the display or turning it to Stand-by-mode for about 6 to 8 hours per day enlarges the life-time of the product decisively and reduces the risk of image retention.

NOTICE!

Operating time for static images
The operating time should not be longer than 20 hours a day. The display should be switched off for 4 hours. This extends the life-time of the display and reduce the risk of "Image Sticking".

NOTICE!

Avoiding static images
Certain fields of application depend on the display of static image content. If possible you should activate a screen saver on the computer for these signals if they do not have to be surveyed as long as they do not change their content (e.g. logos, pictograms...).



NOTICE!

Scaling of the input signals
Since they might also cause image retention you should avoid black image borders on the display. Signals that do not have the same native aspect ratio as the display should always be scaled up to use the entire screen area. This guarantees that the entire display surface is used and no black borders can occur. For example, a 4:3 image signal should be scaled up to 16:9 format to fill the complete screen.

Evaluation of Visual Range

Failure of pixel

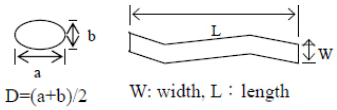
A image point (Pixel) consist of 3 sub pixel with basic colour red, green and blue. The physical dimension of a pixel (also called pixel pitch) differs depending on the model (look at the data sheet for more information). If a pixel failure is larger than 1/2 pixel, it counts as pixel failure according to definition. 3 kinds of pixel failures are differentiated:

- Permanently bright pixel.
  The bright pixel is permanently and with constant size at black testing image.
- Permanent dark pixel.
  The pixel appears permanently dark and constant size at red, green and blue testing image.
- Two pixels lying next to each other.
  Two directly bordering pixels shows a defect.

For more information about acceptable number of dot defects according to ISO 9241 for Class II, see chapter „Overview acceptable total number of dot defects“ on page 47

Pollutions

By the production process and handling of the displays occurs kinds of pollution in range of vision. It applies to inclusions, blistering, depressions, marks, scratches. The following tolerance limits is specified for bonded glass surfaces and optional touch surfaces:



Tolerance limits for bonded glass surfaces:

Kind of pollution	Critical value
Inclusions / Marks	0,5 < D ≤ 1,2 mm, N ≤ 16
Depressions / Blistering	0,3 < D ≤ 1,2 mm, N ≤ 16
Scratch / Lints	0,15 < W ≤ 0,25 mm, 0,3 < L ≤ 10,0 mm, N ≤ 10

Tolerance limits for optional touch surfaces:

Pollution Category	Critical value
Inclusions / Marks	D ≤ 1,5 mm
Depressions / Blistering	D ≤ 1,5 mm
Scratch / Lints	W ≤ 0,25 mm, L ≤ 15,0 mm

Acceptable total number [G] of defects	Critical value
Panel size to 55"	N ≤ 8, G ≤ 12
Panel size from 56" to 65"	N ≤ 9, G ≤ 14
Panel size from 66" to 70"	N ≤ 11, G ≤ 15
Panel size from 71" to 82"	N ≤ 14, G ≤ 18
Panel size from 83" to 110"	N ≤ 16, G ≤ 24

D = diameter, L = length, W = width, N = number of pollution of a category , G = total number of mechanical defects or surface pollutions

Overview acceptable total number of dot defects

Isolated pixel errors can not be eliminated for production reasons. The standard ISO 9241-307 specify the acceptable total number of dot defects for class II panels. You can see the tolerance limits in the following table:

Acceptable total number of dot defects according to ISO 9241-307 for class II panels (in relation to the resolution)

Resolution	Defect type 1	Defect type 2	Defect type 3	
	Bright dot	Black dot	Defect bright subpixel Total = 5-n* n* = 0..[5..11]	Defect black subpixel Total = 2xn* n* = 0..[5..11]
1 million pixel	2	2	5 5-n* 0	0 2xn* 10
XGA 1024 x 768 (0.786 million pixel)	2	2	4 4-n* 0	0 2xn* 8
SXGA 1280 x 1024 (1.310 million pixel)	3	3	7 7-n* 0	0 2xn* 14
WXGA 1366 x 768 (1.049 million pixel)	3	3	6 6-n* 0	0 2xn* 12
WXGA+ 1440 x 900 (1.296 million pixel)	3	3	7 7-n* 0	0 2xn* 14
HD 1920 x 1080 (2.073 million pixel)	5	5	11 11-n* 0	0 2xn* 22

Example: Total number of defect subpixel
(In relation to 1 million pixel)

Number of bright subpixel n = 4, then are only 2 black subpixel allowed (see on right side)

→ 4 bright subpixel + 2 black subpixel

5 bright subpixel + 0 black subpixel
4 bright subpixel + 2 black subpixel
3 bright subpixel + 4 black subpixel
2 bright subpixel + 6 black subpixel
1 bright subpixel + 8 black subpixel
0 bright subpixel +10 black subpixel

Warranty Terms and Conditions

Duration and validity of warranty

The specified product is under warranty for 24 months beginning from the date of delivery by eyevis , valid for the European Union. 12 months applies to products that were purchased outside the European Union. Warranty services during the warranty period do not extend the validity period of the warranty.

Proof of purchase

The sales agreement or the invoice (original invoice with serial number) of the first purchaser must be presented as proof of purchase to claim warranty services. If the customer cannot provide this evidence of purchase, the warranty period is dated back to the date of purchase at the distributor (first supplier) plus one month.

Warranty service or exchange during warranty period

If the product shows any faults or defects during the warranty period, eyevis provides the following services in compliance with the warranty:

Defective On Arrival (DOA)

The customer has to inspect each delivery immediately upon receipt. If any packaging is damaged, the customer has to notify his carrier immediately at goods receiving. If a defect is detected at first unpacking (packaging is not damaged), the customer has to notify his specialist supplier (point of purchase) immediately about the defect. Otherwise the product will be treated under usual terms of warranty.

Return-to-Base-Warranty (Bring-In Warranty)

Defective parts or products must be sent back carriage free to eyevis. In certain circumstances, the product can sent back to the specialist supplier (place of purchase) or to eyevis service center (country of purchase).

If the product requires repair under warranty, the customer is responsible for the cost of transportation to eyevis. Eyevis bears only the one-way costs for the reshipment of repaired or exchanged products to the customer. During transit, the goods are at the owner's risk.

Repair and return

The defective product has to be sent to eyevis by the customer and is repaired within 21 days. In this case, eyevis bears the costs for required components that may be required or the arising working time, as well as for the costs for reshipment to the customer.

Temporary exchange equipment during repair time

(only products under warranty)

Bring-in warranty. The customer can request a temporary exchange product during the repair time if the product under warranty cannot be repaired within 30 days. Depending on availability, eyevis decides whether the equipment can be replaced. Any costs of a return delivery for the exchange equipment are borne by the customer.

Warranty on repairs

As a general rule, repairs or replacements do not extend or restart the warranty period. The repaired parts/components will be treated under warranty for 3 months for same kind of problems.

Warranty exclusions

General exclusions

This warranty covers only malfunction due to any defect in material and/or workmanship of a product put into circulation by the eyevis . A guarantee is therefore excluded for any faults and defects beyond the responsibility of the eyevis , particularly in cases of:

- Improper use, mechanical damages (e.g. marks caused by scratching, pressure or breaking), improper storing or cleaning, transport damages, misuse, or any other reason the customer or a third party is to blame for, especially if the instructions contained in the manual are not adhered to.
- Display damages caused by the permanent representation of static images (or partially static images).
- Failures or fluctuations of the electrical mains supply, the air conditioning system, or other environmental conditions.
- Abnormal operating conditions, including smoke (e.g. cigarette smoke) and dust.
- Defects caused by normal wear and tear or defects caused by lack of service and maintenance (e.g. cleaning the filter).
- Act of God, fire, flood, aggressive chemical, aggressive biological activity, event of war, vandalism, accidents, etc.
- Errors of all kinds of using defective or incompatible accessories. (Not including components delivered from eyevis which are covered by the product's warranty).
- Attempted repair, setting, change, installation, or maintenance by a person not authorized by eyevis .

"Image Sticking" (memory) effect and "Mura"

see chapter „Effects in continuous operation of LCDs“ on page 44

Failure of pixel

see chapter „Evaluation of Visual Range“ on page 46

Accessories

Accessories, such as cardboard boxes, packaging, batteries and other components that are used in connection with this product and that expected to be exchanged are not covered by this warranty.

Factory-applied serial number

A product that's serial number is damaged, changed, or removed is no longer covered by this warranty.

Reaction time

The reaction time to claim a right given by this warranty starts with the customer's announcement of the claim to eyevis. It is calculated in accordance with the standard service hours of the eyevis (Monday - Friday 6:00 AM to 6:00 PM local German time, except German bank holidays).

Advised procedure for raising a claim

Consider the manual before raising a claim

See the sections on "Troubleshooting" and in the manual and check whether the problem might be solved on-site before raising a claim referring to this warranty.

Prepare necessary information

If the problem still exists, the customer should try to get support from a regional eyevis partner.

Please prepare the following information:

- Product identification (model/type) and serial number of the device
- Date and place of purchase or eyevis order number (e.g. AUF-...)
- A description of the problem in hand
- Pick-up address and contact information
- A description of the requested service

Approval by eyevis

After performing an analysis of the faults and damages of the device, eyevis will approve your warranty claim if the necessary requirements are fulfilled.

Service code: RMA number

In case of a defect, the customer will receive a service code the RMA number. eyevis will prepare the service requested by the customer.

Packing

The customer has to pack the defective device properly in the original box, to label it as fragile, and to attach the RMA number visibly on the box. eyevis can provide a new original box on request. The customer is liable for damages caused by the use of improper or unsuitable packaging.

Transport

The customer arranges the transport of the device to eyevis .
For more information, please contact eyevis .

Costs not covered by warranty defects

The eyevis reserves the right to charge the customer for costs incurred due to complaints concerning defects or faults that are not covered by warranty.

Legal and other claims

There are no other express or implied warranties, representations, or conditions than those stated in this warranty. Other legal or contractual claims, including against the seller of the product, are excluded as far as eyevis has provided service based on this warranty.

This warranty does not affect or have influence on other legal guarantee claims or other contractual claims of the customer against the seller of the product. These claims can be made alternatively to the claims referred to in this warranty document.

Limitations of liability

In cases of slight negligent breaches of duty, the liability of eyevis is limited to the direct, foreseeable, and contract-typical average damage. The slightly negligent breach of minor contractual obligations excludes the liability.

eyevis will not be liable for any loss, damage or alterations to third party accessories, hardware or software or programs, data or information stored on any media or any part of the product, no matter how it occurs, or for any loss or damage arising from loss of use, loss of profits or revenue, or for any resulting indirect or consequential loss or damage.

The policy sum regarding all requirements of the warranty does not exceed, at discretion of eyevis, the original purchase price of the product or alternatively the costs of substitution of the product.

The warranty shall not apply to repairs or service necessitated by normal wear and tear or for lack of reasonable and proper maintenance.

As far as the liability of eyevis is excluded or limited, this also applies to the personal compensation liability of its staff, employees, associated employees, agents, and auxiliary persons.

The preceding limitations of liability do not apply to the customer's claims derived from the Product Liability Act and to claims concerning damages to the body or health or in case of the loss of the life of the customer.

Appendix

Appendix: Technical Specification EYE-LCD-3150-QHD-LD

EYE-LCD-3150-QHD-LD

) LCD DISPLAY

Type:	EYE-LCD-3150-QHD-LD-V2
Installation:	Landscape
Screen Size (Active Screen Area):	60“ (1330,6mm x 748,4mm)
Display Resolution:	3.840 x 2.160 Pixel
Pixel Pitch:	0.3465 mm (H) x 0.3465 mm (V)
Brightness:	450 cd/m²
Response time:	8 ms
Viewing Angle::	176° horizontal / 176° vertical
Contrast:	1,000 : 1 (typ.)
Backlight:	Direct LED
Polariser:	Anti Glare, Low Reflection, Hard Coating: 3H
Data Depth Colour:	10 Bit
Frequency:	50/60Hz
Input Connection:	4 x DVI Single Link

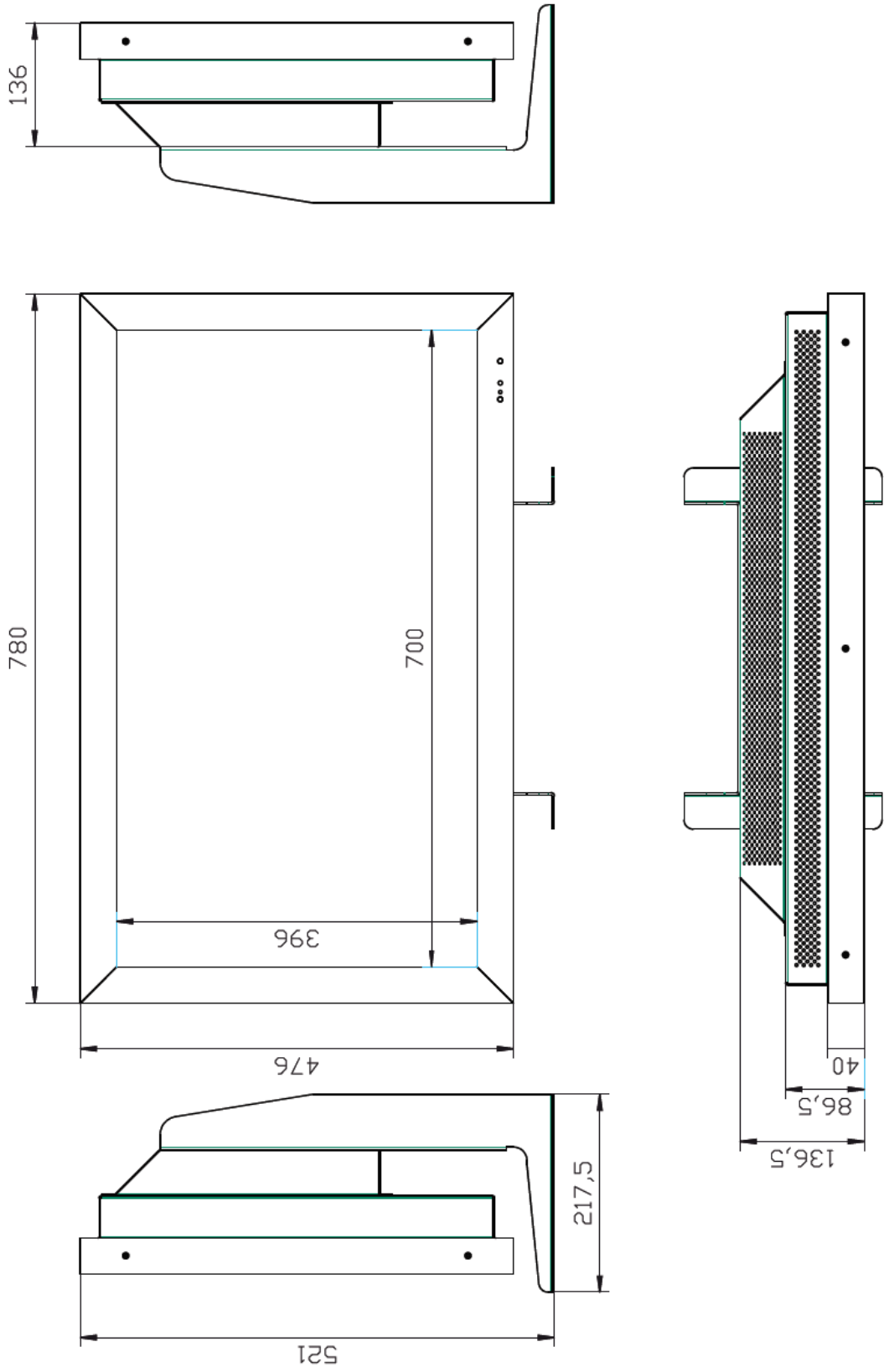
) CONNECTORS

Inputs:	1 x AC operating voltage 4 x DVI IN (DVI-D SL) 1 x LAN 1 x RS232 Input 1 x RS232 Output

) DIMENSIONS, WEIGHT AND ACCESORY

Display Dimensions:	1410,4 x 828,4 x 171,6 mm (B x H x T)
Weight Display:	approx. 75 kg
Power Consumption:	130W
Accessory:	IR Remote Control

Appendix: Dimensions EYE-LCD-3150-QHD-LD



(dimensions in mm)

Appendix: Technical Specification EYE-LCD-6000-QHD-LD

EYE-LCD-6000-QHD-LD

) LCD DISPLAY

Type:	EYE-LCD-6000-QHD-LD-V2
Installation:	Landscape
Screen Size (Active Screen Area):	60“ (1330,6mm x 748,4mm)
Display Resolution:	3.840 x 2.160 Pixel
Pixel Pitch:	0.3465 mm (H) x 0.3465 mm (V)
Brightness:	500 cd/m2
Response time:	6 ms
Viewing Angle::	176° horizontal / 176° vertical
Contrast:	5,000 : 1 (typ.)
Backlight:	Direct LED
Polariser:	Anti Glare, Low Reflection, Hard Coating: 3H
Data Depth Colour:	10 Bit
Frequency:	50/60Hz
Input Connection:	4 x DVI Single Link

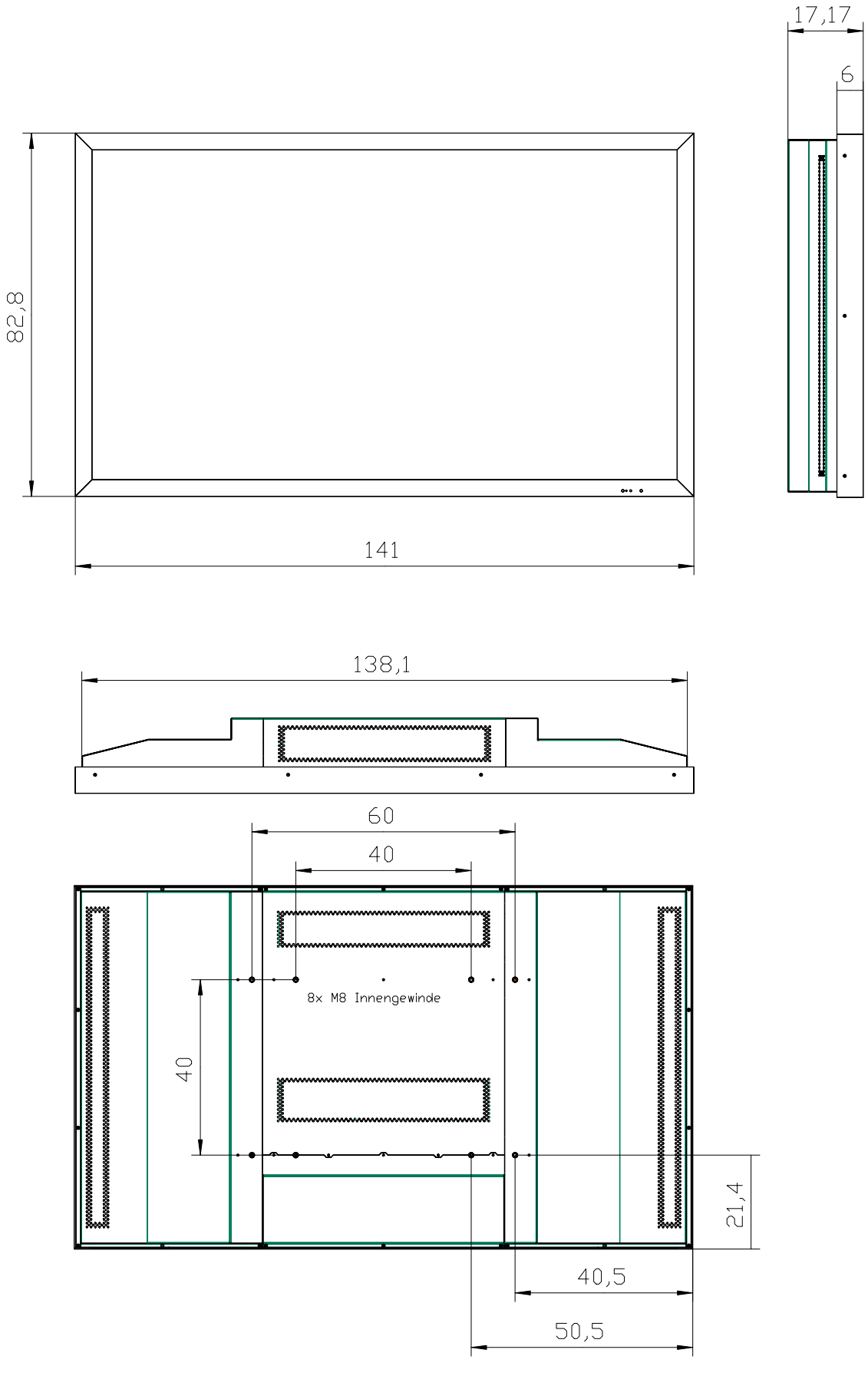
) CONNECTORS

Inputs:	1 x AC operating voltage 4 x DVI IN (DVI-D SL) 1 x LAN 1 x RS232 Input 1 x RS232 Output

) DIMENSIONS, WEIGHT AND ACCESORY

Display Dimensions:	1410,4 x 828,4 x 171,6 mm (B x H x T)
Weight Display:	approx. 75 kg
Power Consumption:	360W
Accessory:	IR Remote Control

Appendix: Dimensions EYE-LCD-6000-QHD-LD



(dimensions in mm)

Appendix: RS232 Protocol

General description

The eyevis LC Displays can be controlled using an ASCII-serial protocol. Each display is assigned an ID and can be addressed in the protocol using this ID. Commands can either be sent to a single ID or to all devices simultaneously (broadcast mode). Device with ID 1 is the master and controls and relays communication between the devices.!

Communication and connection

Serial Port default settings

Setting	Value
Baud Rate:	115200
Data Bit:	8
Parity Bit:	None
Stop Bit:	1

Connection

1:1, RxD, TxD, GND

The communication with the eyevis LC display series is based on an internal database. For interfacing to external controls, there is an easy to use command parser for communication.

Commands

The following user commands are available.

SET	Sets parameters and executes commands
GET	Recall actual parameter values
SAVE	Save parameters permanently in memory

As response there will be the **Value**, an **ACK** (success) or **NACK** (error) returned.

Each display needs to be addressed (ID) from 1 to 999 using rotary switches.

Sending commands using ID=0 is a broadcast to all connected devices. Use carefully to avoid unintended overwriting of existing values.

Flow control needs to be implemented by control system, using ACK reply estimation and waiting time up to 200 ms between commands.

Description of commands

>) **NOTE:**
> Command description = case insensitive!

Structure of the protocol:

<INSTRUCTION> (<DEVICE_ID> ; <COMMAND> ; <ARGUMENTS>)

Structure description:

<INSTRUCTION> **(<DEVICE_ID> ; <COMMAND> ; <ARGUMENTS>)**

The following instructions are available:

Read Instruction	Description
GET	Instruction to read values. Any following arguments are ignored.

Write Instruction	Description
SET	Instruction to write values, implies the existence of one or more arguments.

Other Instruction	Description
FORMAT	Service command to delete specific settings on device.
SAVE	All actual parameters will be stored in a database file located on the internal flash storage. After power on sequence, the display will boot with this values.

<INSTRUCTION> (<DEVICE_ID> ; <COMMAND> ; <ARGUMENTS>)

<DEVICE_ID> is used to select a specified device in a daisy chain. The actual devices can not be daisy chained. The devices answers only requests with the ID "0"(zero) or "1"(one) and always with the response ID "1" (one).

Example:

Request: SET(1;POWER;1)	Response: ACK(1)
Request: SET(0;POWER;1)	Response: ACK(1)

<INSTRUCTION> (<DEVICE_ID> ; <COMMAND> ; <ARGUMENTS>)

You can see the commands in the attached table on page 80.

<INSTRUCTION> (<DEVICE_ID> ; <COMMAND> ; <ARGUMENTS>)

<ARGUMENTS> are optional and only used with SET commands. Any arguments in a GET command are ignored.

Responses

Read Instruction	Positive Response	Negative Response
GET	DATA(1;<COMMAND>;<VALUES>)	NACK(1)

Write Instruction	Positive Response	Negative Response
SET	ACK(1)	NACK(1)

Other Instruction	Positive Response	Negative Response
FORMAT	ACK(1)	NACK(1)

) **NOTE:**
Unknown instructions are always answered with NACK(<DEVICE_ID>).

Command: GET(<DEVICE_ID>;ALL)

The device transmits all available data and an acknowledgement after the last transmitted data.

Command: SAVE(<DEVICE_ID>;ALL)

All actual parameters will be stored in a database file located on the internal flash storage. After power on sequence, the device will boot with this values.

) **NOTE:**
If you do not use this SAVE command after changing parameters from next start up the display will restore previously stored values!

Command examples

Instruction	Response
→ GET(0;ALL)	← DATA(1;POWER;1) ← DATA(1;INPUT_SOURCE;7) ← DATA(1;BACKLIGHT;80) ← DATA(1;BACKLIGHT_EN;1) ... ← DATA(1;AUDIO_VOLUME;20) ← ACK(1)
→ FORMAT(1;ALL) //factory reset	← ACK(1)
→ SAVE(1;ALL)	← ACK(1)

) **TIP:**
- Protocol is case sensitive
- Response is always in upper case
- Any whitespaces are ignored

Command list

RW Flags Description

Flag	Instructions	Description
0	[GET/SET]	SET in database, save in database, GET from database
1	[GET/SET]	SET on device, save in database, GET from database
2	[GET/SET]	SET on device, no save in database, GET from device
3	[GET]	GET from device, read-only value
4	[GET/<Service>]	GET from device, save functionality depends on command (no save, save in database, EEPROM, CS EEPROM), write only with service command

Commands

	Command	Description	RW Flag	Min	Max	DefValue
Power	POWER	Switch / On off device, get power status	1	0	1	1
Device Status	DEVICE_TEMP_SCB	Temperature Board controller Board	2	0	255	0
	DEVICE_ID	Get current Device ID	3	0	999	0
	DEVICE_TYPE	Get Device Type	3			
	DEVICE_STAT_FAN_1	Shape Fan 1 Status	3	0	1	0
	DEVICE_STAT_FAN_2	Shape Fan 2 Status	3	0	1	0
	DEVICE_STAT_FAN_3	Shape Fan 3 Status	3	0	1	0
Network Settings	COM_LAN_IP	Get/Set device IP address if DHCP is off	1			192.168.0.11
	COM_LAN_SM	Get/Set subnetmask	1			255.255.255.0
	COM_LAN_GW	Get/Set gateway ip address	1			192.168.0.1
	COM_LAN_MAC	Get/Serviceset mac address	4			
	COM_LAN_DHCP	Switch on/off network DHCP mode	1	0	1	0
Device Info	INFO_VERSION_CPU_FW	CPU Firmware Version	3			
	INFO_VERSION_IPU_FW	FPGA Firmware version	3			
	INFO_VERSION_DB	Database Version	3			
	INFO_ON_TIME	Total on time of the device	4			
	INFO_ON_COUNT	Total Number of ON/OFF cycle	4			

Input Status	IPU_I1_STABLE_OPERATION	Input 1 Source Present	3	0	5000	1000
	IPU_I1_V_ACTIVE_SIZE	Input 1 Active Lines	3	0	5000	1000
	IPU_I1_H_ACTIVE_SIZE	Input 1 Active Columns	3	0	5000	1000
	IPU_I1_V_TOTAL_SIZE	Input 1 Total Lines	3	0	5000	1000
	IPU_I1_H_TOTAL_SIZE	Input 1 Total Columns	3	0	5000	1000
	IPU_I1_FRAME_FREQ	Input 1 Frequency	3	0	5000	1000
	IPU_I2_STABLE_OPERATION	Input 2 Source Present	3	0	5000	1000
	IPU_I2_V_ACTIVE_SIZE	Input 2 Active Lines	3	0	5000	1000
	IPU_I2_H_ACTIVE_SIZE	Input 2 Active Columns	3	0	5000	1000
	IPU_I2_V_TOTAL_SIZE	Input 2 Total Lines	3	0	5000	1000
	IPU_I2_H_TOTAL_SIZE	Input 2 Total Columns	3	0	5000	1000
	IPU_I2_FRAME_FREQ	Input 2 Frequency	3	0	5000	1000
	IPU_I3_STABLE_OPERATION	Input 3 Source Present	3	0	5000	1000
	IPU_I3_V_ACTIVE_SIZE	Input 3 Active Lines	3	0	5000	1000
	IPU_I3_H_ACTIVE_SIZE	Input 3 Active Columns	3	0	5000	1000
	IPU_I3_V_TOTAL_SIZE	Input 3 Total Lines	3	0	5000	1000
	IPU_I3_H_TOTAL_SIZE	Input 3 Total Columns	3	0	5000	1000
	IPU_I3_FRAME_FREQ	Input 3 Frequency	3	0	5000	1000
	IPU_I4_STABLE_OPERATION	Input 4 Source Present	3	0	5000	1000
	IPU_I4_V_ACTIVE_SIZE	Input 4 Active Lines	3	0	5000	1000
	IPU_I4_H_ACTIVE_SIZE	Input 4 Active Columns	3	0	5000	1000
	IPU_I4_V_TOTAL_SIZE	Input 4 Total Lines	3	0	5000	1000
	IPU_I4_H_TOTAL_SIZE	Input 4 Total Columns	3	0	5000	1000
	IPU_I4_FRAME_FREQ	Input 4 Frequency	3	0	5000	1000
Picture Settings	BACKLIGHT	Backlight	1	0	255	150
	BACKLIGHT_ENABLE	Backlight Enable	1	0	1	1
	IPU1_LINK_STATUS	IPU1 Linkmode Status	3	0	3	1
Misc	CTRL_ERROR_MESSAGES	Turn Error Messages On Off 2	1	0	1	0
	FRONT_LED_ENABLE	Enable Front LED	1	0	1	1

Index

A

APPENDIX 52
- RS232 PROTOCOL 56

B

BATTERIES
- CHANGING 29

C

CLAIM 50
- COSTS 50
- LEGAL 50
- LIMITATIONS 51
- PACKING 50
- RAISING A CLAIM 50
- REACTION TIME 49
- RMA 50
- SERVICE 49
- TRANSPORT 50

CONNECTIONS 25

CONNECTORS 25

CONTROL 25

CONTROLLING 28

D

DOA 48

DOT DEFECTS 47

F

FAILURE 46
- BRIGHT PIXEL 46
- DARK PIXEL 46
- FAILURE OF PIXEL 49
- PIXEL 46

FRAMELOCK 39

G

GAMMA 39

GENLOCK 39

I

ID
- ASSIGNING 27

IMAGE STICKING 44

INSTALLATION 23

M

MALFUNCTION 43

MURA 44

O

ON-SCREEN-DISPLAY 28
- NAVIGATING 28
- OPENING 28

OPERATING 23

OPERATING TIME 24

OSD
- MENU 30

P

PIXEL 46

POLLUTIONS 46
- BLISTERING 46
- DEPRESSION 46
- INCLUSION 46
- LINT 46
- MARK 46
- SCRATCH 46

R

REMOTE CONTROL 28

RETENTION 45
- IMAGE STICKING 44
- MURA 44
- OPERATING TIME 45
- SHADE FORMATION 44
- STATIC IMAGES 45
- TEMPERATURE 45

RMA 50

RS232 PROTOCOL 56

S

SAFETY
- INSTRUCTIONS 7
- PRECAUTION 5

SERIAL NUMBER 49

SHADE FORMATION 44

SYNCHRONISATION 24

T

TOLERANCE LIMITS 46

TROUBLESHOOTING 43

W

WARRANTY 48
- ACCESSORIES 49
- DOA 48
- DURATION 48
- EXCHANGE 48
- EXCLUSIONS 49
- SERIAL NUMBER 49
- SERVICE 48
- VALIDITY 48

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Version: 1.2 | April 2014
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